

# Financial Distress and Its Associations With Physical and Emotional Symptoms and Quality of Life Among Advanced Cancer Patients

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Disclosures of potential conflicts of interest may be found at the end of this article.

**Key Words.** Financial distress • Advanced cancer • Quality of life

## ABSTRACT

**Objective.** There are limited data on the effects of financial distress (FD) on overall suffering and quality of life (QOL) of patients with advanced cancer (AdCa). In this cross-sectional study, we examined the frequency of FD and its correlates in AdCa.

**Patients and Methods.** We interviewed 149 patients, 77 at a comprehensive cancer center (CCC) and 72 at a general public hospital (GPH). AdCa completed a self-rated FD (subjective experience of distress attributed to financial problems) numeric rating scale (0 = best, 10 = worst) and validated questionnaires assessing symptoms (Edmonton Symptom Assessment System [ESAS]), psychosocial distress (Hospital Anxiety and Depression Scale [HADS]), and QOL (Functional Assessment of Cancer Therapy-General [FACT-G]).

**Results.** The patients' median age was 60 years (95% confidence interval [CI]: 58.6–61.5 years); 74 (50%) were female; 48 of 77 at CCC (62%) versus 13 of 72 at GPH (18%) were white; 21 of 77 (27%) versus 32 of 72 (38%) at CCC and GPH, respectively, were black; and 7 of 77 (9%) versus 27 of 72 (38%) at CCC and GPH, respectively, were Hispanic ( $p < .0001$ ). FD

was present in 65 of 75 at CCC (86%; 95% CI: 76%–93%) versus 65 of 72 at GPH (90%; 95% CI: 81%–96%;  $p = .45$ ). The median intensity of FD at CCC and GPH was 4 (interquartile range [IQR]: 1–7) versus 8 (IQR: 3–10), respectively ( $p = .0003$ ). FD was reported as more severe than physical distress, distress about physical functioning, social/family distress, and emotional distress by 45 (30%), 46 (31%), 64 (43%), and 55 (37%) AdCa, respectively (all significantly worse for patients at GPH) ( $p < .05$ ). AdCa reported that FD was affecting their general well-being (0 = not at all, 10 = very much) with a median score of 5 (IQR: 1–8). FD correlated (Spearman correlation) with FACT-G ( $r = -0.23$ ,  $p = .0057$ ); HADS-anxiety ( $r = .27$ ,  $p = .0014$ ), ESAS-anxiety ( $r = .2$ ,  $p = .0151$ ), and ESAS-depression ( $r = .18$ ,  $p = .0336$ ).

**Conclusion.** FD was very frequent in both groups, but median intensity was double among GPH patients. More than 30% of AdCa rated FD to be more severe than physical, family, and emotional distress. More research is needed to better characterize FD and its correlates in AdCa and possible interventions. *The Oncologist* 2015;20:1092–1098

**Implications for Practice:** Financial distress is an important and common factor contributing to the suffering of advanced cancer patients and their caregivers. It should be suspected in patients with persistent, refractory symptom expression. Early identification, measurement, and documentation will allow clinical teams to develop interventions to improve financial distress and its impact on quality of life of advanced cancer patients.

## INTRODUCTION

Twenty-five percent to 50% of all cancer patients report significant levels of distress, and it is frequently not assessed nor detected by health professionals [1]. Advanced cancer has an adverse effect in virtually all dimensions of patients' lives, including physical, psychosocial, spiritual, familial, and role

function. Cancer's least-explored effects include its impact on personal finances and the contribution of financial distress to the overall quality of life. Financial issues have been found to be the second most frequent source of distress identified by cancer patients in a community cancer center context (22%) [1].

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A substantial proportion of cancer patients and their families might experience adverse financial events during the trajectory of the illness [2]. Factors that influence these events include increased direct out-of-pocket expenses related to cancer diagnosis [2], and costs associated with purchasing new clothes because of weight fluctuations, changes in diet and nutritional supplements needed during treatment, home- or childcare [3, 4], and increased utility bills and loss of income secondary to decline functional status [2, 4], among others. In view of continuously increasing health-care costs, the frequency of health care-related financial problems will likely to continue to rise [5]. Patients with advanced cancer may be particularly susceptible to financial distress, given the increased costs of recently developed diagnostic procedures and therapies (e.g., targeted therapies); increased survival, which expands the time frame of expenditures; and the difficulties in generating and/or increasing income in the context of a severely debilitating disease. Many cancer patients make a wide range of financial adjustments to cope with out-of-pocket costs and changes in income they experience postdiagnosis [6]. The extent of financial adjustments needed varies, but extreme measures such as house repossessions [7] and home refinancing [8] have been reported in both the U.S. and the U.K. Forgoing treatment and rationing of medications because of cost have also been reported [9–12]. Insured patients undergoing cancer treatment and seeking copayment assistance can experience a considerable subjective financial burden, and they may alter their care because of high out-of-pocket expenses [13].

The relative contributions of adverse financial events to overall distress in patients with advanced cancer are not well understood. The severity of financial distress in patients with advanced cancer and the relationship between financial distress and physical, psychosocial, spiritual, or family distress and overall quality of life have not been well characterized in the literature. One study showed an inverse association between increased financial difficulties and quality of life [14].

For this study, financial distress was defined as the distress attributed by the patient to the financial burden within the past month. Financial burden, for this study, was defined as the percentage of total family income spent on direct out-of-pocket expenditures in health care during the last month, without considering health insurance [8, 15, 16].

The assessment of the impact of financial distress on overall suffering and quality of life in patients with advanced cancer and the identification of possible associations and explanations is of paramount importance. Unfortunately, patient financial distress is not systematically assessed, and, therefore, opportunities are missed to relieve and prevent financial suffering.

The primary objective of our study was to determine the association between financial distress and quality of life in patients with advanced cancer in a comprehensive cancer center and a general public hospital. The secondary objectives were to characterize the frequency and intensity of financial distress in patients with advanced cancer and determine the association between financial distress, cancer-related symptom burdens, patient characteristics, socioeconomic status, quality of life, and subjective class identification.

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## PATIENTS AND METHODS

This was a cross-sectional survey of 149 patients in the outpatient Supportive Care Center at a comprehensive cancer

center (CCC) and at a general public hospital (GPH) (supportive care clinic and general oncology clinic) in Texas. The patients completed the survey at the time of their initial consultation or follow-up visit. No compensation was provided to participate in the study. The study was approved by the institutional review board of The University of Texas MD Anderson Cancer Center.

Patients older than 18 years with advanced breast, colon, lung, or prostate cancer, and with normal cognition were included. Advanced cancer was defined as one of the following: recurrent disease, had received more than two lines of chemotherapy, locally advanced disease, metastatic disease, or refractory disease. Informed consent was obtained for those patients interested in participation.

We collected demographics and clinical information from each patient, including symptom burden according to the Edmonton Symptom Assessment System (ESAS); Hospital Anxiety Depression Scale (HADS); the Functional Assessment of Cancer Therapy and Functional Assessment of Chronic Illness Therapy-General (FACT-G), to assess quality of life and spirituality; Socioeconomic Status Instrument (SESI); and the Multidimensional Scale of Perceived Social Support (MSPSS). For this investigation, we defined financial distress as the subjective experience of distress attributed by the patient to financial problems on a numeric rating scale, with 0 being best or not present and 10 being worst.

## Survey Instruments

We used the following validated survey instruments. ESAS measures the occurrence of 10 symptoms in the 24 hours preceding the taking of the questionnaire: pain, fatigue, nausea, depression, anxiety, drowsiness, shortness of breath, appetite, sleep, and feeling of well-being. This questionnaire has been validated in cancer populations [17]. For this study, we added an item assessing spiritual pain.

The Socioeconomic Status Instrument is a 13-item scale with 9 items documented directly by patients and 3 documented by the research personnel. It has been validated in cancer patients, showing good validity and reliability (overall Cronbach  $\alpha$  coefficient was 0.78) [18].

The Hospital Anxiety Depression Scale is a 14-item scale with separate subscales for anxiety and depression validated in cancer patients for depression and anxiety assessment [19]. It can be administered or used as a self-assessment tool. A score of 16 or higher is suggestive of a severe case of anxiety or depression [20].

FACT-G (version 4) is a widely used measure of quality of life and constitutes the core of the Functional Assessment of Chronic Illness Therapy. FACT-G comprises 27 questions that assess well-being in four domains: physical symptoms, participation in and enjoyment of normal daily activities, social support and communication, and mood and emotional response to illness—the physical, functional, social/family, and emotional domains, respectively. The scores for the individual domains are summed to obtain a total quality-of-life score. Both the total score and the individual subscale scores have good internal reliability ( $\alpha = 0.72$ – $0.85$ ), and the instrument has been validated in cancer patients [21].

The 12-item MSPSS measures perceived adequacy of social support from family, friends, and a significant other. Ratings are made on a seven-point Likert scale ranging from “very

strongly disagree” to “very strongly agree.” Although MSPSS was initially tested in a narrow undergraduate-student population, several further studies found that the MSPSS is psychometrically sound in diverse populations and has good internal reliability, test-retest reliability, and strong factorial validity. Cronbach  $\alpha$  for the MSPSS has been reported to be 0.93. The  $\alpha$  coefficients for the family, friends, and significant-other subscales have been reported to be 0.91, 0.89, and 0.91, respectively. Comparable coefficients have been obtained for race/sex subgroups [22–24].

The patients were also asked to rate from “strongly agree” to “strongly disagree” statements related to the impact of financial distress on their physical distress, physical functioning, social/family distress, spiritual distress, and emotional distress. The statements were considered positive when the patient responded “strongly agree, agree or somewhat agree.”

We also conducted an exploratory measurement and analysis of different subjective terms to determine the association between those patient-reported terms and financial distress. The questions the patients were asked to rate from 0 (absent) to 10 (worst possible) the following terms: “subjective financial burden,” “financial concerns,” “financial difficulties,” and “financial worries.” At the time of this study, there was no validated tool for the determination of financial distress or another term from the perspective of the patients.

### Statistical Considerations and Analysis

A sample of 149 patients was necessary to allow detection of Pearson’s correlation between financial distress and quality of life as small as 0.232 with 80% power and a 5% type I error rate. We quantified the frequency and intensity of financial distress and determined 95% confidence intervals. We also estimated the Pearson’s correlation between financial distress and other variables for both the CCC subgroup and the GPH subgroup. The association between financial distress and quality of life was assessed by calculating the Spearman correlation for the two measures and then testing the correlation against the null hypothesis. All tests were two-sided, and  $p$  values less than .05 were considered statistically significant. Analyses were performed using SAS software version 9.2 (SAS Institute Inc., Cary, NC, <http://www.sas.com>).

### RESULTS

Patient characteristics are listed in Table 1. The median age was 60 years (95% confidence interval [CI]: 58.6–61.5 years). Seventy-four of the 149 patients (50%) were female. Seventy-eight patients (52%) were married. The distribution of race/ethnicity differed significantly (Fisher’s exact test,  $p < .0001$ ) between the CCC and GPH patients: 62% of the 77 patients at the CCC and 18% of the 72 patients at the GPH were white; 27% and 38% were black, respectively; and 9% and 38% were Hispanic, respectively.

Education levels differed significantly (Fisher’s exact test,  $p < .0001$ ) between the CCC and GPH patients: 58% and 19%, respectively, had a college education or an advanced degree. The median monthly income was \$3,000 (interquartile range [IQR]: \$1,400–\$7,000) for CCC patients and \$940 (IQR: \$350–\$1,300) for GPH patients ( $p = .0017$ ). Of the total 149

patients, 51% self-reported as being middle class before cancer diagnosis and 39% self-reported as being middle class at the time of the study ( $p < .0001$ ).

Financial distress was present in 65 of 75 patients at CCC (86%; 95% confidence interval: 76%–93%) versus 65 of 72 patients at GPH (90%; 95% confidence interval: 81%–96%;  $p = .45$ ). The median intensity score of financial distress (FD) at CCC and GPH was 4 (IQR: 1–7) versus 8 (3–10), respectively ( $p = .0003$ ).

Table 2 lists the data on the impact of financial distress relative to the impact of physical distress, distress in physical functioning, social/family distress, and emotional distress. Financial distress was reported as “strongly agree,” “agree,” or “somewhat agree” significantly more often for GPH patients than for CCC patients for the following outcomes: social/family distress (Fisher’s exact test,  $p = .0085$ ) and emotional distress (Fisher’s exact test,  $p = .0411$ ). We found that advanced cancer patients reported that the presence of financial distress was significantly associated with general well-being (0 = not at all, 10 = very much) with a median score of 5 (IQR: 1–8).

Table 3 lists Spearman coefficients of correlation between financial distress and quality of life (FACT-G,  $r = -0.23$ ,  $p = .005$ ), anxiety (Hospital Anxiety and Depression Scale,  $r = .27$ ,  $p = .001$ ; ESAS-anxiety,  $r = .20$ ,  $p = .01$ ), depression (ESAS-depression;  $r = .18$ ,  $p = .03$ ), subjective financial burden ( $r = -0.53$ ,  $p < .0001$ ), total social support (MSPSS,  $r = -0.17$ ,  $p = .04$ ), and annual household income (Socioeconomic Status Instrument,  $r = -0.45$ ,  $p < .0001$ ). Multivariate analysis showed independent correlation between financial distress and ESAS-anxiety for the CCC group ( $r = .63$ ,  $p = .04$ ), and for FACT-G and ESAS-appetite for the GPH group ( $r = -0.10$ ,  $p = .002$ ; and  $r = -.41$ ,  $p = .03$ , respectively). Table 4 shows the associations between patient-reported financial distress and other subjective terms, including subjective financial burden ( $r = .54$ ,  $p < .0001$ ); self-rated financial difficulties ( $r = .88$ ,  $p < .0001$ ); self-rated financial concerns ( $r = .85$ ,  $p < .0001$ ); and self-rated financial worries ( $r = .84$ ,  $p < .0001$ ).

### DISCUSSION

The main purpose of our study was to measure the frequency and severity of subjective perception of financial distress among patients with advanced cancer who were referred to a palliative care service. Financial distress is rarely reported or even measured in clinical care, especially in patients with advanced and terminal illness with severe burden and distress secondary to symptoms and treatments. Financial distress can affect many facets of life, including patients’ financial well-being and general quality of life. Our findings showed that a high proportion of our advanced cancer patients said they had high frequency and intensity of financial distress; these were significantly associated with anxiety, depression, and quality of life. These elements are part of a phenomenon that has been named financial toxicity [25]. Self-reported financial distress or subjective financial burden has been previously reported in patients with cancer. Chino et al. reported that 47% of patients with cancer diagnosis expressed significant/catastrophic, self-reported financial burden and worse general satisfaction with their medical care [26]. Sharp et al. [27] used

**Table 1.** Advanced cancer patients' characteristics

Characteristic	Overall	CCC	GPH	p value <sup>a</sup>
Age, mean, years	60 (58.6–61.5)	60.5 (58.3–62.6)	59.5 (57.6–61.5)	.5109
Sex				
Female	74 (49.7)	43 (55.8)	31 (43.1)	.1411
Male	75 (50.3)	34 (44.2)	41 (56.9)	
Cancer				
Breast	39 (26.2)	25 (32.5)	14 (19.4)	.2687
Colorectal	36 (24.2)	15 (19.5)	21 (29.2)	
Lung	38 (25.5)	19 (24.7)	19 (26.4)	
Prostate	36 (24.2)	18 (23.4)	18 (25.0)	
Metastasis	119 (81.0)	69 (90.8)	50 (70.4)	.0158 <sup>b</sup>
ECOG status, mean	1.7 (1.6–1.8)	1.9 (1.7–2.1)	1.4 (1.3–1.6)	.0002 <sup>b</sup>
Treatment				
Chemotherapy	115 (77.2)	56 (72.7)	59 (81.9)	.2412
Targeted therapy	30 (20.1)	26 (33.8)	4 (5.6)	<.0001 <sup>b</sup>
Radiation	37 (24.8)	28 (36.4)	9 (12.5)	.0011 <sup>b</sup>
Ethnicity				
White	61 (40.9)	48 (62.3)	13 (18.1)	<.0001 <sup>b</sup>
Black	53 (35.6)	21 (27.3)	32 (44.4)	
Hispanic	34 (22.8)	7 (9.1)	27 (37.5)	
Marital status				
Married	78 (52.3)	48 (62.3)	30 (41.7)	.0925
Single	32 (21.5)	15 (19.5)	17 (23.6)	
Divorced	19 (12.8)	8 (10.4)	11 (15.3)	
Widowed	16 (10.7)	5 (6.5)	11 (15.3)	
Separated	4 (2.7)	1 (1.3)	3 (4.2)	
Religious affiliation				
Christian/Protestant	77 (53.1)	43 (56.6)	34 (49.3)	.2046
Catholic	42 (29.0)	17 (22.4)	25 (36.2)	
Muslim	1 (0.7)	1 (1.3)	0 (0.0)	
Other	25 (17.2)	15 (19.7)	10 (14.5)	
Education				
College	44 (32.6)	33 (47.1)	11 (16.9)	<.0001 <sup>b</sup>
Advanced degree	13 (9.6)	10 (14.3)	3 (4.6)	
High school or less	78 (57.8)	27 (38.6)	51 (78.5)	

Data given as no. (%) or no. (95% confidence interval).

<sup>a</sup>Fisher's exact test p values correspond to comparison between CCC and GPH patients.

<sup>b</sup>Statistically significant at  $p < .05$ .

Abbreviations: CCC, comprehensive cancer center; ECOG, Eastern Cooperative Oncology Group; GPH, general public hospital.

**Table 2.** Perception of the impact of financial distress on other clinical problems among advanced cancer patients

Statements	Overall	Comprehensive cancer center	General public hospital	p value <sup>a</sup>
I have more financial distress than physical distress	45/147 (30)	23/76 (30)	22/71 (31)	1.0000
I have more financial distress than distress about my physical functioning	46/148 (31)	18/76 (23)	28/72 (39)	.0511
I have more financial distress than social/family distress	64/148 (43)	25/76 (33)	39/72 (54)	.0085
I have more financial distress than emotional distress (anxiety/depression)	55/148 (37)	22/76 (29)	33/72 (46)	.0411

Data given as no./total (%) unless otherwise indicated.

<sup>a</sup>Fisher's exact test.

**Table 3.** Correlation between financial distress and clinical and economic variables

Variable	Overall			Comprehensive cancer center			General public hospital		
	No.	r value <sup>a</sup>	p value	No.	r value <sup>a</sup>	p value	No.	r value <sup>a</sup>	p value
<b>ESAS</b>									
Pain	145	.0861	.3031	73	.085	.4745	72	.0629	.5996
Fatigue	146	.0851	.3073	74	.0497	.6742	72	.1321	.2685
Nausea	145	-.0708	.3977	73	.0078	.9478	72	-.0644	.591
Depression	146	.176	.0336 <sup>b</sup>	74	.2264	.0524	72	.1594	.181
Anxiety	146	.2007	.0151 <sup>b</sup>	74	.3311	.004 <sup>b</sup>	72	.1267	.2888
Drowsiness	145	.0435	.6035	73	-.0465	.6962	72	.2002	.0917
Shortness of breath	146	.0381	.6481	74	.0726	.5389	72	-.0244	.8387
Appetite	146	-.0706	.3971	74	.0811	.4919	72	-.1156	.3336
Sleep	145	.1208	.148	73	.217	.0652	72	.0818	.4946
Feeling of well-being	145	.0475	.5703	74	.15	.202	71	.0192	.8739
Spiritual pain	144	.1078	.1984	73	.1012	.3943	71	.151	.2088
<b>HADS</b>									
Anxiety	140	.268	.0014 <sup>b</sup>	72	.414	.0003 <sup>b</sup>	68	.1601	.1923
Depression	141	.108	.2025	72	.1602	.1789	69	.1598	.1897
<b>FACT-G</b>									
Quality of life	146	-.2277	.0057 <sup>b</sup>	74	-.1951	.0958	72	-.3732	.0012 <sup>b</sup>
<b>MSPSS</b>									
Family support	144	-.142	.0896	74	-.1773	.1308	70	-.2233	.0631
Friends' support	144	-.1443	.0844	74	-.1868	.111	70	-.1408	.245
Significant-other support	144	-.1166	.164	74	-.1576	.18	70	-.1569	.1946
Total social support	144	-.1704	.0412	74	-.2179	.0622	70	-.1962	.1035
<b>SES</b>									
Annual household income	130	-.4498	<.0001	70	-.5443	<.0001	60	-.1947	.1361

<sup>a</sup>Spearman rank correlation coefficient.

<sup>b</sup>Statistically significant at  $p < .05$ .

Abbreviations: ESAS, Edmonton Symptom Assessment System; FACT-G, Functional Assessment of Cancer Therapy-General; HADS, Hospital Anxiety and Depression Scale; MSPSS, Multidimensional Scale of Perceived Social Support; SESI, Socioeconomic Status Instrument.

**Table 4.** Associations between patient-reported financial distress and other subjective terms.

	Financial distress <sup>a</sup>	Subjective financial burden <sup>a</sup>	Financial difficulties <sup>a</sup>	Financial concerns <sup>a</sup>	Financial worries <sup>a</sup>
Financial distress	—	$r = .54, p < .0001$	$r = .88, p < .0001$	$r = .85, p < .0001$	$r = .84, p < .0001$
Subjective financial burden	$r = .54, p < .0001$	—	$r = .58, p < .0001$	$r = .58, p < .0001$	$r = .56, p < .0001$
Financial difficulties	$r = .88, p < .0001$	$r = .58, p < .0001$	—	$r = .93, p < .0001$	$r = .90, p < .0001$
Financial concerns	$r = .85, p < .0001$	$r = .57, p < .0001$	$r = .93, p < .0001$	—	$r = .96, p < .0001$
Financial worries	$r = .84, p < .0001$	$r = .56, p < .0001$	$r = .90, p < .0001$	$r = .96, p < .0001$	—

<sup>a</sup>All  $p$  values are statistically significant at  $p < .05$ .

Abbreviations: —, no data;  $r$ , Pearson's correlation coefficients.

National Cancer Registry Ireland data to show that cancer-related financial stress and strain were consistently associated with increased risk for adverse psychological outcomes. For example, the risk for depression was three times higher in patients reporting high levels of cancer-related financial stress and strain.

In agreement with the previously reported finding that the effect of social support was strongest at high levels of financial

stress [28], we found that social support was negatively associated with the presence of financial distress. It is possible that the presence of social support makes patients hopeful that they will receive care from their loved ones even in the presence of financial difficulties.

The finding that many patients perceived financial distress as being more severe than physical, emotional, and spiritual distress is concerning, since the vast majority of the instruments

aimed at determining symptom distress and quality of life do not include a financial distress item. Our findings suggest that measuring the impact of financial distress as one of component of quality of life, together with physical, emotional, and spiritual distress, is important. Another important point is that clinicians should explore more in detail the presence of financial distress in patients who consistently report a high level of physical, spiritual, and emotional distress.

Our population perceived that financial distress was more severe than physical distress, distress about physical functioning, social/family distress, and emotional distress. Others have reported that financial distress can be associated with nonadherence to prescribed medications [29] and poor overall patient satisfaction [26].

Comparing different studies on the effects of financial distress can be difficult when different terms are used to refer to the same concept. The lack of a common definition of financial distress is a challenge. Nevertheless, our finding that the self-rated variables financial difficulties, financial concerns, and financial worries were all significantly correlated with financial distress indicates that these variables likely measured the same concept. This finding is reassuring because it implies that patients interpret these terms in a concordance fashion, but more research is needed to better define the best way to evaluate subjective perception of financial distress.

In contrast to the lack of a common definition of financial distress, there is some concordance in the literature on the definition of objective financial burden as the ratio of total out-of-pocket spending on health-care services and premiums to total family income [8, 15, 16]. Recent literature has highlighted some limitations of the use of objective definitions of financial burden [30]. This has been specifically addressed in the context of establishing a relationship between financial burden and mental health issues; some authors argue that subjective factors such as feelings of subjective deprivation or subjective social class identification predict psychological well-being independently of objective financial burden. This relationship is probably explained by the lower self-esteem and the lower sense of control over life that people who experience this subjective feeling have [30, 31]. Not all patients experience the same objective and subjective financial burden; certain subgroups of the population are at higher risk for paying more out of pocket. In a study of patients receiving chemotherapy for colorectal cancer, younger patients and those with lower household income were predisposed to experience greater financial burden [32]. In addition, other sociodemographic characteristics, including type of insurance, race, marital status, education, geographic location, and comorbidity, all contribute to higher out-of-pocket expenses [32, 33]. Another factor is the place where the health care is delivered, either public or private settings [33]. Further research is needed to evaluate these aspects in patients with advanced cancer and other chronic illnesses.

Some tools, such as the Comprehensive Score for Financial Toxicity [34], and strategies to correctly assess these domains will help us better understand what is happening to our patients and identify possible interventions to ease their suffering and improve their quality of life. The content validity and internal consistency of this tool were reported in a study of

155 advanced cancer patients. More research needs to be done to validate it in larger samples and other settings. Our study had been completed already by the time this tool was published.

This study is not without limitations. Because we used a cross-sectional study design, the causal relationships between financial distress and other factors related cannot be considered. More research is needed to address the possible causality and fluctuations in intensity and frequency during the trajectory of the illness. Also, we cannot generalize our results, since only two institutions were involved; further studies would need to be developed at a higher scale, including private and public hospitals.

Our results strongly support that financial distress should be regularly measured in all patients with advanced illness attending to supportive/palliative care services. Expressive supportive counseling for financial distress as a component of overall emotional distress and psycho-educational interventions to help patients address financial problems should be part of health-care strategies among supportive and palliative care teams. The regular measurement and documentation of financial distress will allow clinical teams to test interventions aimed at reducing the overall impact of financial distress on quality of life.

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## CONCLUSION

In summary, financial distress was very common in both hospital groups, but the severity of financial distress in GPH patients was double the severity of financial distress in CCC patients. Financial distress was associated with anxiety, depression, and poor quality of life. More than 30% of the patients rated financial distress as more severe than physical, family, and emotional distress. Additional research is needed to confirm these associations and to develop effective interventions for cancer patients who experience financial distress.

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## DISCLOSURES

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