Distress and Financial Distress in Adults With Cancer: An Age-Based Analysis

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Abstract

Background: Although financial distress is commonly recognized in patients with cancer, it may be more prevalent in younger adults. This study sought to evaluate disparities in overall and financial distress in patients with cancer as a function of age. **Methods:** This was a single-center cross-sectional study of patients with solid malignancies requiring cancer therapy. The patient questionnaire included demographics, financial concerns, and measures of overall and financial distress. Data analyses compared patients in 3 age groups: young (<50 years), middle-aged (50–64 years), and elderly (≥65 years). **Results:** The cohort included 119 patients (median age, 62 years; 52% female; 84% white; 100% insured; 36% income ≥\$75,000). Significant financial concerns included paying rent/mortgage ($P=.003$) and buying food ($P=.032$). Impact of Event Scale (IES) results revealed significant distress in 73% young, 64% middle-aged, and 44% elderly patients. The mean Distress Thermometer (DT) score was 6.1 (standard deviation [SD], 2.9) for young patients, 5.4 (SD, 2.6) for middle-aged, and 4.4 (SD, 3.3) for elderly patients. Young patients were more likely than elderly patients to have a higher IES distress score ($P=.016$) and DT score ($P=.048$). The mean InCharge score was lowest (indicating greatest financial distress) in the young group and progressed with age: 5.0 (SD, 1.9), 5.7 (SD, 2.7), and 7.4 (SD, 1.9), respectively ($P<.001$). Multivariable analyses revealed that the relationship between financial distress and overall distress was strongest in the middle-age group; as the DT increased by 1 point, the InCharge scores decreased by 0.52 ($P<.001$). **Conclusions:** Overall and financial distress are more common in young and middle-aged patients with cancer. There are several factors, including employment, insurance, access to paid sick leave, children, and education, that affect younger and middle-aged adults and are less of a potential stressor for elderly individuals.

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Background

Cancer is an expensive and stressful disease. Because it is often treated as a chronic disease involving long and sometimes recurring courses of treatments, medical bills can quickly accumulate. Patients with cancer face greater out-of-pocket (OOP) costs than their healthy counterparts, and this is true for both nonelderly patients^{1,2} and Medicare beneficiaries. The estimates for patients with cancer whose OOP costs exceed 20% of their income (indicating a high OOP burden) is 13.4% in the adult nonelderly population¹ and 27.6% among Medicare enrollees,³ whereas a representative all-age study

found the level to be 11%.⁴ Financial issues may vary based on age. Although elderly patients may have lower fixed incomes, the financial protection of Medicare and social security may provide less costly securities than nonelderly patients with cancer who may be dependent on employment for health insurance and income. However, traditional Medicare does not have an OOP maximum, and therefore the millions of beneficiaries without supplemental insurance are at increased risk for financial distress as a result of a cancer diagnosis.⁵ The American Cancer Society reports that 53% of the 15.5

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million cancer survivors are aged ≤ 69 years,⁶ which highlights the need to support this population.

The length and intensity of treatment may result in loss of earnings for patients or caregivers.⁷ Concerns surrounding employment affect working-age patients, although the importance of job security, career development decisions, and retirement will vary with age and dependency of spouses and children.⁸ A recent review described 3 domains of financial hardship: material conditions, psychological response, and/or coping behaviors.⁹ This article focuses on the psychological response and provides age-related context for potential deficits of material conditions and coping behaviors as a result of financial distress.

Our previous analysis of patients with cancer found significant levels of financial distress (29%) and overall distress (65%), and that these constructs were interrelated.¹⁰ For example, with every 1-point increase in financial wellness, the overall distress score decreased by 0.727 points. This association was direct, and was also indirectly mediated by emotional distress, which accounted for 24% of the overall effect. The present study extended this work to understand how age may be associated with both financial and overall distress. Because financial concerns and responsibilities change throughout life, we examined 3 age groups: young (< 50 years), middle-aged (50–64 years), and elderly (≥ 65 years).

Methods

This study included a convenience sample of patients at an NCI-designated Comprehensive Cancer Center, recruited through outpatient medical oncology and psychiatry clinics. All eligible patients were aged ≥ 18 years and currently taking, had previously taken, or were consulting with their physician to begin taking anticancer medications.

The study involved one survey that patients completed in clinic. We received a Waiver of Documentation of Informed Consent, and therefore patients were kept anonymous and we did not access medical charts to verify any responses or collect incomplete information. The survey, which was amended slightly after the first 60 patients, included demographics along with the validated measurements outlined in the following sections. This study was conducted in 2 phases of 60 patients each from September 2013

through April 2014, and was approved by the Fox Chase Cancer Center Institutional Review Board.

Patient Characteristics

Self-reported demographics included age, sex, race and ethnicity, level of education, annual household income, marital status, homeowner status, employment status, and disease and treatment history (phase 2 only).

Age Groups

Literature review, along with consideration of changing priorities at different stages of life, helped us develop age groups to frame our analysis. Our “young” group included ages 18 through 49 years, the group most likely to be working, raising a family, and potentially not yet worried about retirement. “Middle-aged” included patients aged 50 to 64 years, who are less likely to have dependent children. These patients are more likely to be preparing for retirement, which may impact their willingness to use savings or go into debt to pay for treatments. These first 2 groups are also collectively characterized as “working-age.” The “elderly” group included patients aged ≥ 65 years, who are least likely to be working and raising children. Although they are most likely to be on a fixed income from social security, pensions, and 401(k) payouts, they are also most likely to be provided basic health insurance through Medicare. These age groups are especially relevant because cancer and its treatments, along with physical and emotional side effects, can make it difficult for patients to maintain work responsibilities, which may result in job loss and subsequent loss of health insurance.¹¹

Concerns

A list of common expenses selected by the study team, including housing, bills, food, and medical expenses (phase 2 only), were presented and patients were prompted to indicate any of their financial concerns. Patients could alternatively select “no concerns about expenses.”

Distress Measurements

We measured distress in 2 ways. First with the Impact of Event Scale (IES),¹² a 15-item measure that evaluates the subjective impact of a traumatic stressor, which in this case was the participant’s cancer diag-

nosis and treatment. Self-report scores ranged from 0 to 75. Although there is no unanimous cutoff for psychological distress, relevant literature has used a cutoff of 26 to indicate moderate to severe distress.¹³

Second, the NCCN Distress Thermometer (DT) was used, which asks patients to identify their overall psychosocial distress in the last week on a thermometer with scores ranging from 0 to 10, with 0 indicating no distress and 10 indicating the highest level of distress¹⁴; scores of ≥ 4 are considered clinically meaningful.¹⁵

Financial Distress Measurements

Financial distress was measured using the InCharge Financial Distress/Financial Well-Being Scale (InCharge), which includes questions such as “How do you feel about your current financial situation?” and “How confident are you that you could find the money to pay for a financial emergency that costs about \$1,000?” This 8-question instrument measures a latent construct representing responses to one’s financial state on a continuum ranging from a score of 1.0 (overwhelming financial distress) to 10.0 (highest level of financial well-being). Raw averaged scores from 1.0 to 4.0 inclusively represent high financial distress.¹⁶

Statistical Analysis

Means were calculated for continuous variables, and categorical variables were tabulated. We used *t* tests to compare means, and chi-square statistic and Fisher exact test to compare categorical values. We performed several multiple linear regressions with robust standard errors using the distress and financial distress measures as outcomes of interest, and age (<50, 50–64, and ≥ 65 years), sex, race, marital status, education, employment, income, and whether their cancer was metastatic as the independent variables. These analyses were performed using STATA (StataCorp LP, College Station, TX).

Results

Patient Characteristics

A total of 120 patients with cancer completed the survey instrument, with 119 reporting their age on the survey and therefore included in this analysis. All participants reported having health insurance. The participants were split into 3 groups for analysis

based on age: young ($n=22$), middle-aged ($n=47$), and elderly ($n=50$). The 3 age cohorts were demographically most similar in female sex ($P=1.00$); the significant variations included marital status ($P=.029$), employment ($P<.001$), and whether the patient felt the need to continue working to pay for treatment ($P<.001$). The remaining patient characteristics are described in Table 1.

Concerns

A total of 54% of elderly patients indicated no financial concerns compared with slightly less than half (43%) of the middle-aged and approximately a quarter (27%) of the young cohorts ($P=.106$). The most commonly reported concerns were rent/mortgage (young: 45%, middle-aged: 36%, elderly: 12%), paying other bills (young: 55%, middle-aged: 43%, elderly: 28%), and medical expenses (young: 43%, middle-aged: 32%, elderly: 43%). The significant concerns included rent/mortgage ($P=.003$), recreational activities ($P=.030$), and buying food ($P=.032$). Other financial concerns are presented in Table 2.

Distress Measurements

All patients responded to the IES ($n=119$), with 73% ($n=16$) of the young, 64% ($n=30$) of the middle-aged, and 44% ($n=22$) of the elderly patients reporting scores indicating significant distress. A total of 108 patients completed the NCCN DT. The mean score was 6.1 (standard deviation [SD], 2.9) for young patients, 5.4 (SD, 2.6) for middle-aged, and 4.4 (SD, 3.3) for elderly patients ($P=.11$ for joint test of 3 means). A total of 16 young (80%), 30 middle-aged (71%), and 24 elderly patients (52%) reported clinically meaningful DT scores ($P=.102$). Young patients were more likely than elderly to have higher IES ($P=.016$) and DT scores ($P=.048$). Figure 1 presents a comparison of overall and financial distress scores in the 3 cohorts.

Financial Distress Measurements

A total of 118 patients responded to InCharge: 22 young, 47 middle-aged, and 49 elderly. The mean score was lowest (indicating greatest financial distress) in the young group and progressed with each age group: 5.0 (SD, 1.9), 5.7 (SD, 2.7), and 7.4 (SD, 1.9), respectively ($P<.001$). A score categorized as “financial distress” was reported by 8 young (36%)

Age-Based Financial Distress

Table 1. Patient Characteristics

	Age <50 y (n=22)	Age 50–64 y (n=47)	Age ≥65 y (n=50)	Overall (N=119)	P Value ^a
Age, y, mean (range)	42 (22–49)	58 (50–64)	72 (65–87)	61 (22–87)	
Sex					
Female	11 (50)	25 (53)	26 (52)	62 (52)	1.00
Race					
White	21 (95)	37 (79)	42 (84)	100 (84)	.526
Black	1 (5)	6 (13)	6 (12)	13 (11)	
Other	0 (0)	4 (8)	2 (4)	6 (5)	
Marital status					
Married/Domestic partnership	12 (55)	31 (66)	35 (70)	78 (66)	.029
Single	7 (32)	9 (19)	2 (4)	18 (15)	
Separated/Divorced	3 (13)	6 (13)	8 (16)	17 (14)	
Widowed	0 (0)	1 (2)	5 (10)	6 (5)	
Residential status					.936
Homeowner	16 (73)	35 (75)	40 (80)	91 (76)	
Rents home	4 (18)	8 (17)	7 (14)	19 (16)	
Other	2 (9)	3 (6)	3 (6)	8 (7)	
Missing	0 (0)	1 (2)	0 (0)	1 (1)	
Education					.079
Up to high school diploma/GED/VoTech	6 (27)	23 (49)	28 (56)	57 (48)	
Some college/associate's degree	9 (41)	7 (15)	7 (14)	23 (19)	
Bachelor's degree or greater	7 (32)	16 (34)	15 (30)	38 (32)	
Missing	0 (0)	1 (2)	0 (0)	1 (1)	
Employment					<.001
Retired	0 (0)	13 (28)	39 (78)	52 (44)	
Employed for wages	13 (59)	15 (32)	9 (18)	37 (31)	
Not working	7 (32)	17 (36)	2 (4)	26 (22)	
Missing	2 (9)	2 (4)	0 (0)	4 (3)	
Do you feel the need to continue working to pay for your treatment?					<.001 ^b
Yes	15 (68)	20 (43)	10 (20)	45 (38)	
No	5 (23)	25 (53)	39 (78)	69 (58)	
Missing	2 (9)	2 (4)	1 (2)	5 (4)	
Annual household income					.228
<\$25,000	4 (18)	9 (19)	6 (12)	19 (16)	
\$25,000–\$74,999	8 (36)	15 (32)	24 (48)	47 (39)	
≥\$75,000	10 (46)	21 (45)	12 (24)	43 (36)	
Missing	0 (0)	2 (4)	8 (16)	10 (9)	
Has health insurance	22 (100)	47 (100)	50 (100)	119 (100)	1.00
I support myself financially ^c	17 (77)	44 (94)	47 (94)	108 (91)	.077
How long ago were you diagnosed?					
<1 year ago	7 (32)	8 (17)	7 (14)	22 (18)	.627
1–3 years ago	2 (9)	8 (17)	3 (6)	13 (11)	
3–5 years ago	1 (5)	4 (8)	5 (10)	10 (8)	
>5 years ago	4 (18)	5 (11)	6 (12)	15 (13)	
Missing ^c	8 (36)	22 (47)	29 (58)	59 (50)	
Is your cancer metastatic?					
Yes	10 (46)	17 (36)	11 (22)	38 (32)	.097
No	4 (18)	8 (17)	10 (20)	22 (18)	
Missing ^c	8 (36)	22 (47)	29 (58)	59 (50)	
If metastatic, how long ago did you learn that your cancer had metastasized?					
<1 year ago	4 (18)	10 (21)	3 (6)	17 (14)	.294
1–3 years ago	3 (14)	4 (9)	4 (8)	11 (9)	
3–5 years ago	0 (0)	2 (4)	3 (6)	5 (4)	
>5 years ago	3 (14)	1 (2)	1 (2)	5 (4)	
Not metastatic	4 (18)	8 (17)	10 (20)	22 (18)	
Missing ^c	8 (36)	22 (47)	29 (58)	59 (50)	

Abbreviations: GED, general educational development; VoTech, vocational-technical.

^aAll P values were calculated using the Fisher exact test.^bThis is a response to the prompt "Who do you receive financial support from?" This response was expanded in phase 2 to include support from a spouse.^cParticipants in phase 1 were not presented with these questions; these were added to the phase 2 questionnaire.

Table 2. Financial Concerns				
	Age <50 y (n=22)	Age 50–64 y (n=47)	Age ≥65 y (n=50)	P Value ^a
	N (column %)	N (column %)	N (column %)	
No concerns	6 (27)	20 (43)	27 (54)	.106
Student loan debt (for yourself or family)	4 (18)	4 (9)	1 (2)	.035
Rent/Mortgage	10 (45)	17 (36)	6 (12)	.003
Paying other bills	12 (55)	20 (43)	14 (28)	.078
Buying food	7 (32)	10 (21)	4 (8)	.032
Childcare	3 (14)	3 (6)	1 (2)	.106
Clothing	3 (14)	6 (13)	4 (8)	.688
Recreational activities (ie, movies, vacation)	6 (27)	9 (19)	3 (6)	.030
Holidays (eg, gifts, food)	5 (23)	10 (21)	3 (6)	.044
Medical expenses ^b	6 (43)	8 (32)	9 (43)	.704
Other	0 (0)	4 (9)	5 (10)	.398

^aAll P values were calculated using Fisher exact test.

^bMedical expenses was added to the list in phase 2, so the sample sizes for this question include young (n=14), middle-aged (n=25), and elderly (n=21).

and 16 middle-aged (34%) patients compared with only 4% of elderly (n=2; $P < .001$). See Figure 2 for a distribution of scores by normative category.

Multivariable Analyses

The results of the multivariable analyses are shown in Table 3. In separate models, both IES distress and InCharge financial distress were associated with age when controlling for sex, race, marital status, education, employment, income, and whether the cancer had metastasized. The association between age and DT did not remain statistically significant on multi-variable analysis.

We found that the association between financial and overall distress (measured by the DT) varied based on age (Figure 3). Among middle-aged patients, the financial distress score (measured using

InCharge, with scores ranging from 1.0 to 10.0, and lower scores indicating greater financial distress) decreased by 0.52 points for every 1 point increase in the DT ($P < .001$), indicating that worsening financial distress was associated with worsening overall distress (ie, slope of -0.52 for adjusted regression of financial distress on the DT). However, the association of financial distress with the DT among young patients was not statistically significant (adjusted regression slope of -0.09 ; $P = .581$). For elderly patients, a 1-point increase in the DT decreased the financial distress score by 0.30 points (adjusted regression slope of -0.30 ; $P = .003$). The difference in slopes comparing young and middle-aged patients was statistically significant (-0.52 vs -0.09 ; $P = .027$), but the difference in slopes comparing young and el-

Figure 1. Comparisons of significant results on distress (A,B) and financial distress (C) measures by age. Breakdown of percentage of patients in the younger (aged <50 y), middle-aged (50–64 y), and elderly (aged ≥65 y) groups who met or exceeded the cutoff for each instrument. NCCN DT scores ≥4 indicate significant distress. IES scores ≥26 indicate significant distress. InCharge scores ≤4.0 indicate financial distress. Abbreviations: DT, NCCN Distress Thermometer; IES, Impact of Event Scale; InCharge, InCharge Financial Distress/Financial Well-Being Scale.

Age-Based Financial Distress

Figure 2. InCharge Financial Distress and Financial Well-being Scale (InCharge) Scores.

The percent of patients whose average reported score was contained within each decile are presented, separated by age: <50 years, 50–64 years, ≥65 years. Raw calculated scores are divided by 8 (number of questions) to determine the average score, which is presented to 1 decimal point. Scores ≤4.0 represent financial distress. Normative descriptors are displayed to label each decile of scores.

derly patients was not statistically significant (-0.09 vs -0.30 ; $P=.23$).

Discussion

Among our group of oncology patients seen at an NCI-designated Comprehensive Cancer Center, we found significant differences in financial and overall distress based on age. The relationship between financial and overall distress was strongest in the middle-aged group; as the distress thermometer increased by 1 point, the InCharge scores decreased by 0.52 ($P<.001$). This means that for patients aged 50 to 64 years, an increased self-reported distress score on the DT was associated with a worse financial distress score on the InCharge. Middle-aged patients reported high levels of financial concerns related to paying other bills (43%) and rent/mortgage (36%). Regarding medical expenses, however, the middle-aged group reported the lowest levels of concern (32%) compared with the young and elderly groups (43% of each).

Financial concerns were reported at all income levels, indicating that income alone cannot protect against financial distress. All patients had health insurance and most were well-educated and relatively affluent, demonstrating that financial distress cannot simply be attributed to lack of resources. Financial distress is likely a byproduct of multiple external factors, including the cost and burden of treatment, rather than personal socioeconomic resources. The present analysis revealed heightened levels of distress on both the DT and IES, as well as financial distress as measured by the InCharge in both the young and middle-aged groups.

On review of relevant literature suggesting greater overall and/or financial distress in younger patients,^{11,17–19} our conclusions add a level of interconnectedness between the 2 constructs. Although it is a relatively small sample, our cross-sectional study population was recruited from multiple outpatient medical oncology clinics and our outpatient psychiatry department that treated patients with all cancer types. A recent systematic review of employment is-

Table 3. Linear Regression for Various Distress Measurements

	InCharge			Impact of Event Scale			Distress Thermometer		
	Coefficient	95% CI	P Value	Coefficient	95% CI	P Value	Coefficient	95% CI	P Value
Age, y									
Young (<50 y)	0			0			0		
Middle-age (50–64 y)	0.74	–0.47 to 1.95	.23	–7	–16.03 to 2.02	.13	–1.34	–3.02 to 0.34	.12
Elderly (≥65 y)	1.52	0.03 to 3.01	.05	–12.8	–24.01 to –1.59	.03	–1.38	–3.43 to 0.66	.18
Sex									
Female	0			0			0		
Male	–0.41	–1.29 to 0.46	.35	–2.7	–8.95 to 3.54	.39	–0.85	–2.16 to 0.45	.2
Race									
American Indian or Alaskan Native	0			0			0		
Black or African American	–1.25	–3.22 to 0.72	.21	–10.3	–24.4 to 3.78	.15	–0.35	–3.39 to 2.69	.82
White	14	–1.67 to 1.96	.88	–15.33	–27.66 to –3.01	.02	–1.33	–4.14 to 1.49	.35
Marital									
Married/Domestic partner	0			0			0		
Single/Divorced/Separated/Widowed	0.89	–0.03 to 1.81	.06	0.91	–6.18 to 7.99	.8	0.85	–2.24 to 0.53	.22
Education									
Up to high school diploma/GED/VoTech	0			0			0		
Some college/Associate's degree	0.42	–0.86 to 1.7	.52	–1.2	–9.1 to 6.7	.76	–0.37	–2.28 to 1.55	.7
Bachelor's degree or greater	0.28	–0.69 to 1.26	.57	1.08	–6.43 to 8.59	.78	–0.55	–2.01 to 0.9	.45
Employment									
Employed for wages/self-employed/homemaker	0			0			0		
Retired/Out of work but not looking for work	0.86	–0.52 to 2.23	.22	2.46	–6.84 to 11.76	.6	0.39	–1.34 to 2.12	.66
Unable to work/out of work and looking for work	–1.34	–2.52 to –0.16	.03	3.54	–5.97 to 13.06	.46	1.81	0.3 to 1.97	.2
Income									
<\$25,000	0			0			0		
\$25,000–\$74,999	0.85	–0.55 to 2.24	.23	–4.87	–14.74 to 4.97	.33	–0.88	–2.52 to 0.76	.29
≥\$75,000	1.88	0.27 to 3.49	.02	0.8	–10.61 to 12.21	.89	0.18	–1.61 to 1.97	.84
Metastasized									
NA	0			0			0		
No	–0.6	–1.93 to 0.72	.37	3.4	–5.09 to 11.89	.43	0.31	–1.64 to 2.25	.76
Yes	–0.02	–0.95 to 0.91	.96	0.49	–6.64 to 7.62	.89	0.38	–0.94 to 1.7	.57

Abbreviations: GED, general educational development; NA, not applicable; VoTech, vocational-technical.

sues affecting young adult cancer survivors reported that the distress they face likely has its roots in the high cost of cancer treatments, with the complicating factors of personal mental and physical capability to work in order to earn wages and potentially secure health insurance.²⁰

These findings are significant for several reasons. First, they provide insight into the challenges and concerns working-age patients with cancer and their families may face to afford care in an environment of rapidly increasing costs. Our findings are consistent with those of other investigators. Kale and Carroll²¹ found that cancer survivors experiencing financial burden were more likely to be younger. These patients had greater worries about recurrence and cancer affecting their responsibilities, and also had lower over-

all physical and mental quality-of-life scores. Second, other research found that younger cancer survivors were more likely to have higher OOP costs and serious psychological distress,^{22,23} forgo treatment due to cost,¹⁸ or experience financial distress.^{4,11,24,25} Another study of patients with breast cancer found that being middle-aged (46–64 years) was correlated with treatment nonadherence or financial hardship and that, overall, younger patients were more likely to experience financial hardship.¹⁷ Additionally, a recent study comparing cancer survivors aged 18 to 64 years (nonelderly) versus those ≥65 years (elderly) found that nonelderly survivors experienced more material (eg, filing for bankruptcy, making financial sacrifices to pay for treatment; 28.4% vs 13.8%, respectively) and psychological (eg, worrying about paying large medical

Age-Based Financial Distress

Figure 3. Association between financial distress (InCharge) and distress (Distress Thermometer) by age.

For each 1 point increase in DT (indicating increased distress), the financial distress score decreased (indicating increased financial distress) at various rates based on age. The most significant results were in the middle-aged group: the association between InCharge and DT was significant at $P < .001$. The difference in slopes was significant between the middle-aged and younger groups ($P = .027$). There was a significant association between InCharge and DT in the elderly group ($P = .003$), but no significance compared with the young group ($P = .229$). Abbreviations: DT, NCCN Distress Thermometer; InCharge, InCharge Financial Distress/Financial Well-Being Scale.

bills; 31.9% vs 14.7%, respectively) financial hardship as a result of their cancer and treatment.⁸ In a study comparing types of cost-coping strategies, younger patients were more likely to decrease their expenses by using care-altering methods (eg, not filling prescriptions, reducing dosages, skipping appointments or procedures) rather than lifestyle-altering methods (eg, reducing spending on leisure or basics, using savings, selling possessions), which could result in worse clinical outcomes.²⁵

In addition to potentially having amassed greater savings and assets, older patients with cancer are afforded protective economic benefits through social security and Medicare, which is not reliant on current employment.¹¹ Even in our relatively small sample, most patients in the elderly group reported no financial concerns (54%), although almost one-half (43%) did express a concern with medical expenses. An analysis of bankruptcy filings found that a cancer diagnosis made a person 2.65 times more likely to declare bankruptcy. Among patients with cancer who filed for bankruptcy, 81% were aged ≤ 64 years, and each increased year of age reduced the risk of bankruptcy by 20%.¹¹ Furthermore, there is an association

between filing for bankruptcy and poorer clinical outcomes,²⁶ underscoring the importance for clinicians to recognize financial distress in their patients.

Many factors affect the financial stability of an individual or household during a cancer diagnosis. Younger patients are more likely to be employed, and a job loss or extended absence can lead to lost income and possible loss of health insurance. Spouses may struggle with balancing work-related responsibilities with their role as informal caregivers. Although our study did not ask about access to paid sick leave, the significant levels of financial burden reported by working-age patients supports the need for federal laws providing paid sick leave that can also be used for family care.²⁷⁻³¹ Patients with stage III colorectal cancer who reported no access to sick leave also reported higher levels of numerous measures of financial burden than patients with paid sick leave: 28% borrowed money, 29% had difficulties making credit card payments, 50% reduced spending for food and clothing, and 57% reduced recreational spending.³¹ Although our patient respondents were generally affluent, well-educated, and insured, Veenstra et al³¹ found that access to paid sick leave is a problem that

affects more than just low-income workers or families with low socioeconomic status. Many patients must take potentially unpaid time off work in order to receive cancer treatment; compounding the probable high OOP expenses helps brew a perfect storm of financial burden and distress.³²

Although we did not ask or make any conclusions about our patients' individual insurance coverage, it is likely that our patients in the elderly group had greater access to Medicare and were less likely to be reliant on employer-based insurance. Physicians must begin or continue to have difficult conversations regarding the cost of treatments with their patients. These conversations, along with an understanding of their own financial situation, can allow patients to make more economically informed decisions about their cancer care.

Our results should be interpreted within the limitations of this study. Because patients were approached in clinic after approval from their clinician, they were potentially less likely to be distressed than those for whom permission was not given. We recruited a small number of patients from our outpatient psychiatry clinic, and it is possible they were more distressed than the general outpatient population. Patients completed the survey on their own, but could consult with their family members or the research assistant if necessary. It is possible that the presence of family members could cause the patient to underestimate or overestimate emotional or financial concerns. The recruitment method used was a simple convenience sample, and no efforts were made to recruit patients of any specific demographic, including age. There was no additional insurance information collected, so we are unable to make any conclusions based on type of insurance or level of coverage. The COMprehensive Score for financial Toxicity (COST) measure had not yet been published^{33,34} at the time of our study, so we did not use a cancer-specific instrument to measure financial distress. We did not collect information about the stage of cancer or time point in treatment, which were

limitations due to the cross-sectional nature of the data. Regardless of these limitations, results show a high level of financial concerns, and that they may be higher among working-age patients. Specifically, we describe some of the additional economic, work-related, and familial strains that could burden a patient of traditional working-age.

Conclusions

Although universal screening for distress in patients with cancer has been recommended,^{14,35–37} general uptake of this recommendation has been slow.³⁸ A similar universal call for specific financial distress screening has not yet been made; however, a new cooperative group study (SWOG S1417) is focusing on bringing a “financial health” assessment into the realm of routine clinical assessment for metastatic colorectal cancer.³⁹ Providers and institutions should be aware of the possibility that working-age patients may experience these burdens at greater rates than older patients, and therefore these issues should be specifically addressed. Elderly patients may have economic protections through Medicare, pensions, and savings. Young patients may not have spouses or children who depend on them financially, and may be less concerned about using financial resources to pay for treatment rather than saving for retirement. The middle-aged group may be the goldilocks group at greatest risk for financial distress: they are most likely to have financial dependents; most concerned about saving for impending retirement and therefore less willing to go into medical debt; and perhaps less likely to have parents or family members that they could borrow money from. Future work on the topic should include robust data of patients' insurance type to allow for conclusions to be made about financial distress as a result of specific insurance. Additionally, work comparing interventions based on age groups such as ours could help identify the best way to resolve overall and financial distress related to cancer and its treatments.

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