

# Innovations

## The Influence of Socioeconomic Factors on Distress among Newly Diagnosed Cancer Patients: A Cross-Sectional Analysis

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### Abstract:

#### Background:

Newly diagnosed cancer patients often experience distress. The treatment a person receives for cancer can be influenced by factors like their social background, but little is known about how these factors affect emotional well-being post-diagnosis. This study aimed to identify the social factors associated with distress in individuals recently diagnosed with cancer. **Material and Methods:** Cancer patients who were first diagnosed between January and December of 2023 were asked to fill out a questionnaire called the NCCN distress thermometer during their initial visit. They were also asked to identify specific things that caused them distress. **Results:** The study involved 458 patients who returned distress thermometers. The average age of the participants was 57 years, and 71% of them were women. Breast cancer was the most common type of cancer among the participants, followed by gynecological and gastrointestinal malignancies. 12% of the patients reported a distress score of 0, while 39% reported a score of 6 or higher. Financial difficulties were the most common cause of distress for the referred group. The study found that women, younger patients aged 28 to 45, and unemployed individuals were more likely to experience higher levels of

*distress. Additionally, patients with higher distress scores also had poorer clinical consequences.*

**Key words:** *cancer patients, social distress, social support, psychological distress, prognosis.*

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### **Conclusion:**

By understanding a patient's social background, we can better anticipate their emotional needs and provide targeted interventions following a cancer diagnosis.

### **Introduction:**

Patients newly diagnosed with cancer experience varying levels of distress, encompassing psychological, social, spiritual, and physical aspects. This distress can hinder a person's ability to cope with their cancer diagnosis, leading to feelings of sadness, fear, depression, anxiety, and loneliness-often a consequence of the illness itself (Fann et al., 2008).

Distress can exacerbate the physical side effects of cancer and its treatment, such as fatigue, nausea, vomiting, sleep disturbances, and pain. Consequently, some patients experiencing distress may delay or miss scheduled treatments (Okeke et al., 2023; Almigbal et al., 2019).

Studies show that distress is prevalent in about 50% of cancer patients, with the highest rates occurring in those with advanced disease and poor prognosis. Studies show that emotional distress is common among new cancer patients, but it's often not identified (Johnson et al., 2020; Hofman et al., 2007). Therefore, screening for distress is a vital part of cancer treatment.

Non-medical factors like race, gender, income, education, housing, and other personal circumstances can significantly affect a person's health (Forchuk et al., 2016).. For example, poverty can limit access to healthcare (Carrera et al., 2018). People from lower socioeconomic groups might mistrust doctors or have trouble understanding medical information (Powell et al., 2019; Adams et al., 2017). These factors can also lead to unhealthy habits like smoking (Garrett et al., 2015).

The NCCN Distress Thermometer is a tool used to measure the level of distress people experience, ranging from no distress (0) to extreme distress (10). This study focused on identifying factors that may increase distress after a cancer diagnosis, determining the types of distress people experience, and investigating how distress might affect survival.

### **Materials and Methods:**

All patients who were newly diagnosed with cancer and filled out a distress thermometer during their first visit to our hospital were included in this study. We

recorded information about their personal details, cancer details, health conditions, and how long they lived. We also asked them to tell us what caused them to feel distressed:

**Financial concerns:** Medical expenses, lost income, and financial planning for the future.

**Fear:** Treatment outcomes, future quality of life, and disease consequences.

**Physical symptoms:** Pain, fatigue, and other physical side effects of cancer and treatment.

**Role changes:** Difficulty adjusting to changes in work, family, and social roles.

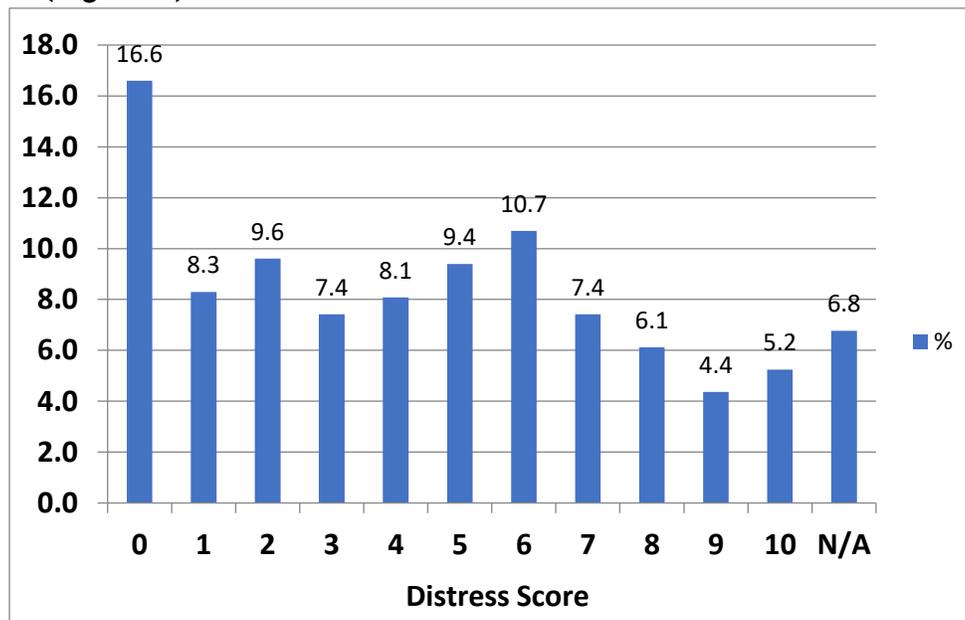
**Body image changes:** Changes in appearance due to cancer or treatment.

**Family and social support:** Lack of adequate support from loved ones and social stigma.

We examined the relationship between distress levels and disease outcomes using statistical techniques.

**Results:**

The study included 458 patients. Table 1 shows their information. The average age was 57, with a range of 26 to 84. There were 326 females (71%). Among females, breast cancer was most common, affecting 151 (33%). Overall, gastrointestinal malignancies were most common, affecting 202 (44%). The lowest score was 0, affecting 16% (76) of patients. A total of 186 (40%) of patients had a distress score of 6 or higher (Figure 1).



**Figure 1.** Distribution of distress score.

When questioned about their specific sources of distress, 68% of the patients referred to us reported financial difficulties as a major concern (Table 1 and 2).

**Table 1.** Common Components Causing Distress in Enrolled Cancer Patients

<b>Factors</b>		<b>Numbers</b>	<b>%</b>
Financial concerns	Medical expenses	311	68
	Lost income	279	61
	Financial planning for the future	215	47
Fear	Treatment procedure	238	52
	Quality of life and disease consequences	339	74
Physical symptoms	Pain,	211	46
	Fatigue	115	25
	Other physical side effects of cancer and treatment	105	23
Role changes	Difficulty adjusting to changes in work	307	57
Body image changes	Changes in appearance due to cancer or treatment	284	62
Family and social support	Lack of adequate support from loved ones	110	24
	Social stigma	266	58

**Table 2.** Patient characteristics of distress score of 0 versus all other distress scores. Significant values are in bold.

<b>Variables</b>	<b>Distress score = 0 (N=76)</b>	<b>Distress score 1–10 (N=382)</b>	<b>P value</b>
Age (mean)	60.7 ± 14.7 years	58.4 ± 13.7 years	<b>0.02</b>
Female	62.0%	75.4%	<b>&lt; 0.0001</b>
Married	47.7%	48.9%	0.98
Unemployed	94.3%	94.7%	0.94
Rural residency	59%	61%	0.72
Stage I/II	56.6%	59.2%	0.51
Breast Cancer	46.0%	54.0%	<b>&lt; 0.0001</b>
Gynecologic malignancies	38.0%	62.0%	<b>&lt; 0.0001</b>
Gastrointestinal malignancies	41.0%	59.0%	<b>&lt; 0.0001</b>
Other	49.0%	51.0%	0.97
Alive	92.5% (258/279)	92.8% (589/635)	0.99

**Discussion:**

Previous research demonstrates that psychological distress negatively impacts the quality of life and health of cancer patients. This information is valuable for both healthcare professionals and patients. The study also highlights the importance of counseling for cancer patients to address their psychological issues and improve the overall quality of cancer care. It suggests that early identification and treatment of psychological distress, along with ongoing monitoring, should be included in cancer management guidelines (Ostovar et al., 2022).

Our study found that many cancer patients undergoing chemotherapy suffer from depression and anxiety. Additionally, using smokeless tobacco and having a large family can also contribute to their mental health problems. These results can help healthcare providers and policymakers develop better programs to support the mental well-being of cancer survivors, especially in areas with limited resources (Roshid et al., 2024).

The study found that many outpatients experience significant psychological distress related to cancer. Unlike a previous study, this one identified several factors associated with distress, including being female, having a primary tumor in a specific location, being in an advanced stage of cancer, and having multiple metastases (Marik et al., 2022).

Our research found that younger cancer patients experienced more emotional distress. This could be due to their busy lives being disrupted and the shock of a cancer diagnosis at a young age. Specifically, patients aged 27-45 had the highest distress scores. Recognizing this vulnerability in younger patients is crucial. When deciding who needs social work or counseling, age could be a helpful factor to consider for referrals. This finding aligns with other studies showing a similar link between younger age and higher distress in cancer patients (Linden et al., 2012; Gotze et al., 2020). Studies using various survey instruments, including the NCCN distress thermometer, consistently indicate that adolescents and young adults (AYAs) with cancer experience distress related to the diagnosis, disease effects, treatment, and life transitions. The distress thermometer, a simple yet effective tool, enables early identification of distress, leading to improved outcomes for AYAs with cancer in India (Shrivastava et al., 2022).

Our study revealed that a significant number of patients and their caregivers experienced persistent or worsening anxiety and depression. However, the impact of psychological distress varied greatly between patient-caregiver pairs. This suggests that tailored support interventions should be designed to address the unique needs of each dyad, with a particular focus on those at high risk of psychological distress. (Teo et al., 2023).

Financial concerns are a significant source of distress for many cancer patients. The high cost of treatment, including medications, procedures, and hospital stays, can

quickly deplete savings and lead to financial hardship. Loss of income due to time off work for treatment or reduced ability to work can further exacerbate these challenges. Patients often face difficult decisions about prioritizing medical care, daily living expenses, and long-term financial security. This financial strain can significantly impact a patient's emotional well-being and overall quality of life, compounding the challenges of coping with a cancer diagnosis. Financial concerns were the primary source of distress among patients with a distress score of six or greater. This finding aligns with existing research demonstrating that impoverished individuals often have limited access to healthcare and experience poorer health outcomes (Paek et al., 2012; Co et al., 2021). Upon a new patient's arrival at a healthcare institution, various sociodemographic factors are documented. While specific components of socioeconomic status aren't directly recorded, assessing a patient's financial situation, especially when facing a new cancer diagnosis, could be beneficial. While patient confidentiality and respect are paramount, discreet inquiries about financial well-being could help identify those at risk of distress due to financial constraints.

Fear and distress are common emotional responses to a cancer diagnosis. The uncertainty surrounding the disease, its progression, and treatment outcomes can create a sense of overwhelming anxiety. Fear of pain, disability, and death is often present. These emotions can significantly impact a patient's quality of life, affecting their ability to cope with treatment, maintain relationships, and engage in daily activities. Understanding and addressing these fears is crucial in providing comprehensive care for cancer patients.

Physical symptoms associated with cancer and its treatment can be a significant source of distress. Pain, fatigue, nausea, vomiting, and changes in appetite are common challenges faced by patients. These physical discomforts can significantly impact a patient's quality of life, making it difficult to perform daily activities, maintain social interactions, and cope with the emotional burden of a cancer diagnosis. Effective pain management and symptom control are essential components of cancer care to alleviate distress and improve overall well-being.

Role changes can be a significant source of distress for cancer patients. A cancer diagnosis often necessitates adjustments in work, family, and social roles. Patients may experience difficulty balancing treatment regimens with job responsibilities, leading to financial strain and feelings of inadequacy. Changes in care giving roles within the family can also create stress and conflict. Additionally, social isolation may occur as patients withdraw from previous activities and relationships due to the demands of their illness. These role transitions can contribute to feelings of loss, uncertainty, and decreased self-worth.

Alterations in physical appearance due to cancer treatments, such as hair loss or mastectomy, can severely affect a patient's self-image and emotional state. These

changes often lead to feelings of low self-esteem and social withdrawal. How a patient views their body can significantly impact their overall quality of life and mental health as they navigate the cancer journey.

Cancer patients benefit greatly from strong family and social connections. These connections offer emotional support, practical help, and a sense of community. However, without adequate support, patients may feel isolated, lonely, and burdened. Finding a balance between independence and relying on others can be difficult. Additionally, the stress of care giving can decrease the support available, creating a strain on both the patient and their caregivers. Furthermore, social stigma surrounding cancer can significantly worsen a patient's distress. Misconceptions, fears of contagion, and discrimination can lead to social isolation and emotional turmoil. Patients may struggle to maintain relationships, find work, and access resources. The fear of being treated differently or judged can amplify feelings of anxiety and depression. Addressing social stigma is key to creating a supportive environment for cancer patients.

Recent decades have witnessed significant advancements in distress measurement tools within the medical field. While the distress thermometer proved valuable, more comprehensive surveys could potentially uncover additional insights and actionable strategies. Crucially, our research indicates a correlation between elevated initial distress levels and higher mortality rates, aligning with findings from other studies (Chirico et al., 2017; Wang et al., 2020). We advocate for routine distress assessment during initial and subsequent patient visits.

Our findings indicate that women newly diagnosed with cancer often experience heightened distress compared to men. This may be attributed to their typically greater domestic and professional responsibilities, as suggested by Seedat et al. 2021. Addressing these burdens through childcare support, family counseling, and support groups could potentially alleviate distress among female cancer patients. Previous research has established a link between depression and poorer survival rates in women with cancer. Moreover, this association strengthens when anxiety levels are accounted for, emphasizing the critical role of mental health in cancer outcomes for women (Walker et al., 2020).

Indian research has consistently shown high rates of distress among cancer patients, emphasizing the necessity for regular screening and appropriate psychological support. Implementing routine distress assessments in India's larger healthcare facilities is hindered by overwhelming patient numbers, insufficient trained staff, limited resources, and the lack of standardized screening protocols. Nevertheless, some Indian medical centers are successfully incorporating distress screening with dedicated teams. Both healthcare professionals and administrative staff are crucial in establishing and executing effective distress screening and management plans to enhance overall patient care (Normen et al., 2021).

**Conclusion:**

Our study found that specific social determinants correlate with heightened distress in newly diagnosed cancer patients, which is linked to poorer clinical consequences. A multidisciplinary approach involving practice, research, and policy is needed to address this complex issue. To improve patient well-being, we recommend integrating psychologists into treatment teams and prioritizing research on psychological distress management, given that 60% of our patients experienced it.

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