

Determinants of Emotional Distress Among Cancer Patients in Portugal: a Cross-Sectional Study

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INTRODUCTION

Distress has mainly been used in literature as a single term to describe the mental, physical, social, or spiritual nature of unpleasant experiences among cancer patients. Although a single *distress thermometer* could be used to measure the level of *distress* in a visual-analog format, more recently, the use of a set of five *Emotion Thermometers* (ET) – each corresponding to a different domain: distress, anxiety, depression, anger and need for help – are being encouraged for a comprehensive evaluation of *Emotional Distress* (ED) in cancer patients.¹

OBJECTIVES

- To measure the presence of ED in cancer patients in Portugal;
- To explore the association of ED with clinical and socioeconomic characteristics.

METHODS

This cross-sectional study was based on the application of a questionnaire, to all patients diagnosed with cancer at their first appointment at the psycho-oncology unit of the Portuguese Cancer League, which provides specialized psychological support for oncological patients.

The questionnaire included the five ET and some socioeconomic and clinical questions. The data collection period was 26 months, and all data were self-reported.

Analyses

- Five logistic regressions were performed to explore the association of each ET with age, sex, disease phase (diagnosis, treatment, relapse, survival, palliative), pain (yes/no) and economic difficulties (yes/no).
- Previously validated Portuguese cut-offs were used to indicate the presence of ED based on each ET (i.e., ≥ 5 for “distress”, “depression” and “anger”; ≥ 6 for “anxiety” and ≥ 4 for “need for help”).²

RESULTS

- Between February 2020 to April 2022, a total of **500 patients** diagnosed with cancer answered to the questionnaire.

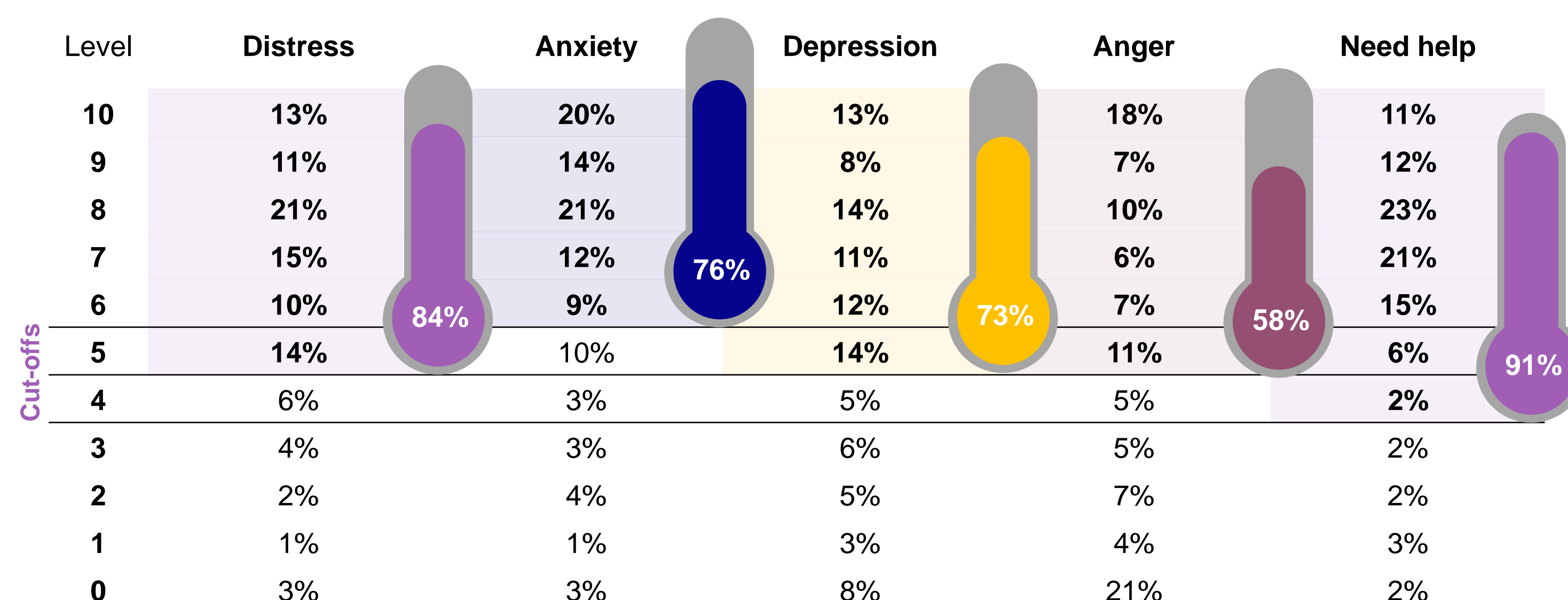
1. Sample characteristics

	N (%)	Percentage of patients by type of cancer
Socioeconomic		
Age (mean(SD))	56.4 (12.6)	Breast 50.6%
Female	393 (78.6)	Colorectal 7.8%
Economic difficulties ¹	142 (28.4)	Lung 5.8%
Clinical		
Disease phase		
Treatment	244 (48.8)	Linfoma 4.8%
Survival	166 (33.2)	Brain 3.6%
Palliative	19 (3.8)	Stomach 2.4%
Diagnosis	39 (7.8)	Thyroid 2.0%
Relapse	32 (6.4)	Multiple Myeloma 2.0%
Pain ²	303 (60.6)	Prostate 1.8%
		Cervical 1.8%
		Pancreatic 1.6%
		Leukemia 1.6%
		Pharyngeal 1.6%
		Other 12.6%

2. Emotional distress

Emotion Thermometers – 5 items

Percentage of respondents in each level and percentage of patients **above cut-offs**



3. Determinants of emotional distress

	Distress OR (SE)	Anxiety OR (SE)	Depression OR (SE)	Anger OR (SE)	Need Help OR (SE)
Sociodemographic					
Age (years)	-	-	1.021 (0.008)**	-	-
Female	1.789 (0.516)**	1.807 (0.445)**	1.781 (0.436)**	-	-
Economic difficulties	2.151 (0.709)**	-	2.070 (0.526)***	1.830 (0.390)***	-
Clinical					
Disease phase					
Treatment (ref.)					
Survival	-	-	-	-	0.491 (0.174)**
Palliative	-	-	-	-	-
Diagnosis	-	-	-	-	-
Relapse	-	-	-	-	-
Pain	-	1.745 (0.380)**	-	-	2.358 (0.787)**

Legend: OR: odds ratio; SE: standard error; **p<0.05; ***p<0.01
Note: only statistically significant results at 95% confidence interval are presented in the table

- Female patients were more likely to report distress, anxiety, and depression.
- Having economic difficulties increased the odds of reporting distress, depression and anger.
- Being in the survival phase, in comparison to being in the treatment phase decreased the odds of reporting the need for help.
- Having pain increased the odds of reporting anxiety and the need for help.
- Each additional year of age increased in odds of reporting depression by approximately 2%.

Limitations

- This cross-sectional study aimed at evaluating the need for psychological support by cancer patients, at their first psycho-oncology appointment provided by the Portuguese Cancer League, however a further reevaluation of the patients is recommended, to measure the efficacy of the psychological support.

TAKE HOME MESSAGES

- ET is a validated instrument that allows the screening for emotional distress in cancer patients in clinical settings, to allow a quick and appropriate referral;
- Economic difficulties, pain and being female were found as the main drivers for increased odds of reporting emotional distress;
- Special focus should be given to these patients, for further psychological support.