

Implementation and evaluation of a psychosocial distress screening protocol in a multidisciplinary head and neck cancer clinic

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Importance:

- Psychosocial distress:** An unpleasant emotional experience of a psychosocial (cognitive, behavioral, emotional), social, and/or spiritual nature that may interfere with the ability to cope with cancer, its physical symptoms, and its treatment.¹
 - Identified as an important predictor for a range of negative medical outcomes^{2,3}
- Distress prevalence is higher in Head & Neck Cancer (HNC) patients compared to cancer groups more generally
 - 60% distress prevalence in Head & Neck Cancer (HNC) patients versus 40% among general cancer groups⁴⁻⁸
 - Elevated HNC distress is attributed to treatment side effects, functional impairment and loss (eg, speech and swallowing),⁹⁻¹¹ disfigurement,¹² persistent pain and fatigue.^{13,14}
- Distress screening is not widely implemented despite high prevalence and adverse impact on outcomes in HNC patients

Objectives:

- To examine clinically significant distress and sources of distress in HNC patients
- To develop and implement a standardized protocol that screens HNC patients for distress, as well as psychological, social, financial, and behavioral issues that may contribute to a patient's treatment or adversely affect clinical outcomes

Methods:

Participants & Setting:

UCLA HEAD & NECK CANCER PROGRAM (HNCP)	HEAD & NECK SURGERY
	RADIATION ONCOLOGY
	HEMATOLOGY ONCOLOGY
	CLINICAL PSYCHOLOGY
	SOCIAL WORK
	PATHOLOGY
	NEURORADIOLOGY
	SPEECH PATHOLOGY
	MAXILLOFACIAL PROSTHETICS
	CLINICAL NUTRITION
	PALLIATIVE CARE

- UCLA Head & Neck Cancer Program (HNCP): multidisciplinary HNC oncology team that meets weekly for a tumor board conference followed by same-day clinic
- All HNCP patients completed the HNCP Distress (HNCP-DS) at intake
- Same-day psychosocial evaluation was triggered by Distress Thermometer (DT) score ≥ 4 or by direct referrals by clinicians based on clinical judgment

Psychosocial Screening Instruments:

HNCP Distress Screener (HNCP-DS) Components:

- NCCN Distress Thermometer (DT)
- HNC-Adapted NCCN Problem List
- PHQ-4: Patient Health Questionnaire to screen for anxiety and depression

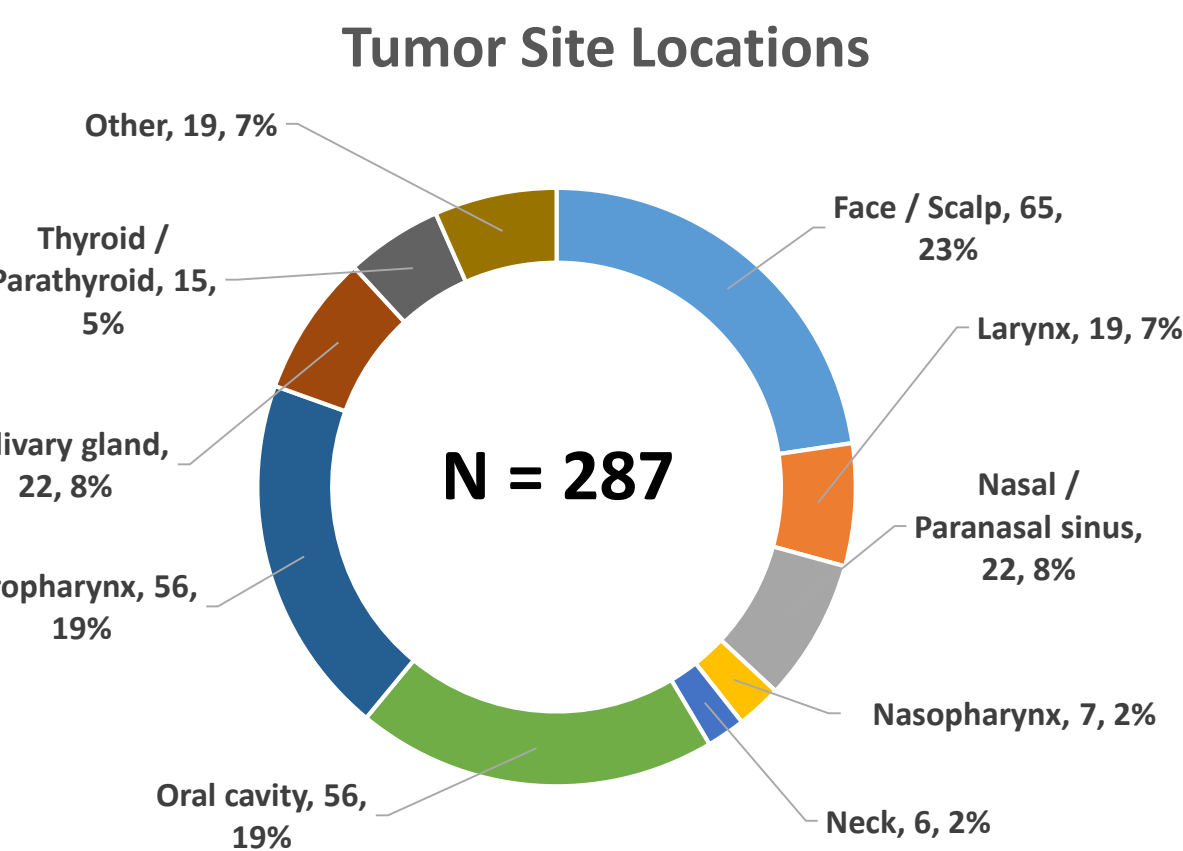
Data Analysis:

- T-tests and chi-square tests analyzed distressed and non-distressed patients based on demographics and clinical variables
- Multivariable logistical regression to identify variables associated with distress (DT ≥ 4)

Sample Characteristics (N=287)

Characteristic	Count	DT Score	Distressed (DT ≥ 4)
	N=287	Mean	SD
Gender			Count
Female	101	5.48	3.13
Male	186	3.99	3.35
Age			%
< 50	48	4.92	2.85
50-65	80	4.86	3.37
≥ 65	159	4.22	3.46
Marital Status			
Single	43	4.41	3.25
Married / Partnered	196	4.44	3.25
Divorced	18	6.36	2.73
Widowed	19	5.24	4.34
Unknown	11	2.05	2.97
Educational			
Some high school	16	5.69	3.24
High school graduate	46	4.93	3.43
Associate degree	48	5.14	3.52
Bachelor degree	85	4.25	3.07
Professional degree	71	3.68	3.51
Unknown	21	5.17	2.91
Employment Status			
Yes	124	4.47	3.23
No	26	5.27	3.48
Retired	137	4.41	3.43
Tobacco Use			
Current	13	5.81	3.86
Former	111	4.67	3.52
Never	160	4.37	3.16
Alcohol Use			
Yes	163	4.43	3.26
No	124	4.63	3.46
Stage of Disease			
Stage 0	9	4.33	3.74
Early stage	103	4.31	3.27
Locally advanced	63	5.21	3.33
Metastatic	28	3.70	3.58
Multiple Primary	3	2.33	1.53
Recurrence	11	5.36	3.85
Not formally staged	15	4.50	3.65
Unable to Stage	18	4.69	3.43
Unknown	5	6.00	2.35

September 2017 – March 2020	
Total Distressed [DT score ≥ 4], N(%)	163 (57%)
Average DT score (Mean $\pm$ S.D.)	4.51 $\pm$ 3.35
DT Score of Distressed (Mean $\pm$ S.D.)	7.07 $\pm$ 1.85
DT Score of Non-Distressed (Mean $\pm$ S.D.)	1.14 $\pm$ 1.16



- Age was inversely related to distress, with younger patients reporting higher DT scores
- Female patients reported higher average DT scores than males
- Divorced patients reported higher DT scores than single and partnered patients
- Patients with a professional degree reported significantly lower DT scores than those with a high school, trade, or associate's degree

Distressed patients reported significantly higher anxiety and depression scores than non-distressed patients

PHQ-4 Domain	Distressed (n=163)		Non-Distressed (n=124)	
	Score (Mean $\pm$ SD)	n(%)	Score (Mean $\pm$ SD)	n(%)
Depression**	2.04 $\pm$ 1.97		0.33 $\pm$ 0.86	
+ PHQ-2**		37 (22.7)		2 (1.6)
- PHQ-2		126 (77.3)		122 (98.4)
Anxiety**	3.08 $\pm$ 2.14		0.78 $\pm$ 0.33	
+ GAD-2**		73 (44.8)		8 (6.5)
- GAD-2		90 (55.2)		116 (93.5)

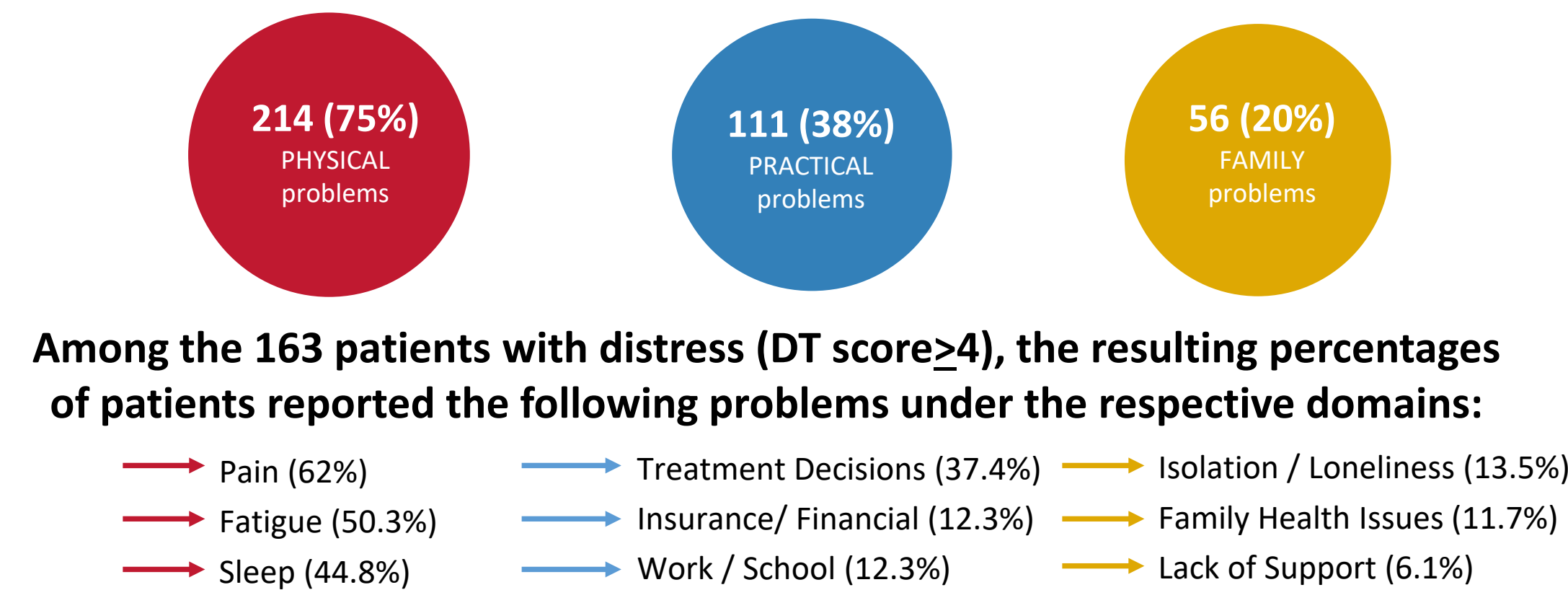
** p < 0.01

HNC-Specific Problem List

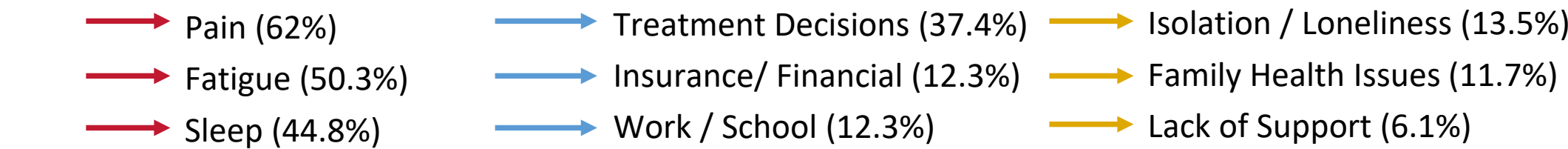
Of the total patients (N = 287):

- Patients reported an average of 4.0 $\pm$ 3.7 problems on the modified HNC-specific Problem List
- 232 (81%) patients endorsed at least one problem from any category

The following number of patients reported at least one problem in each of the categories below:

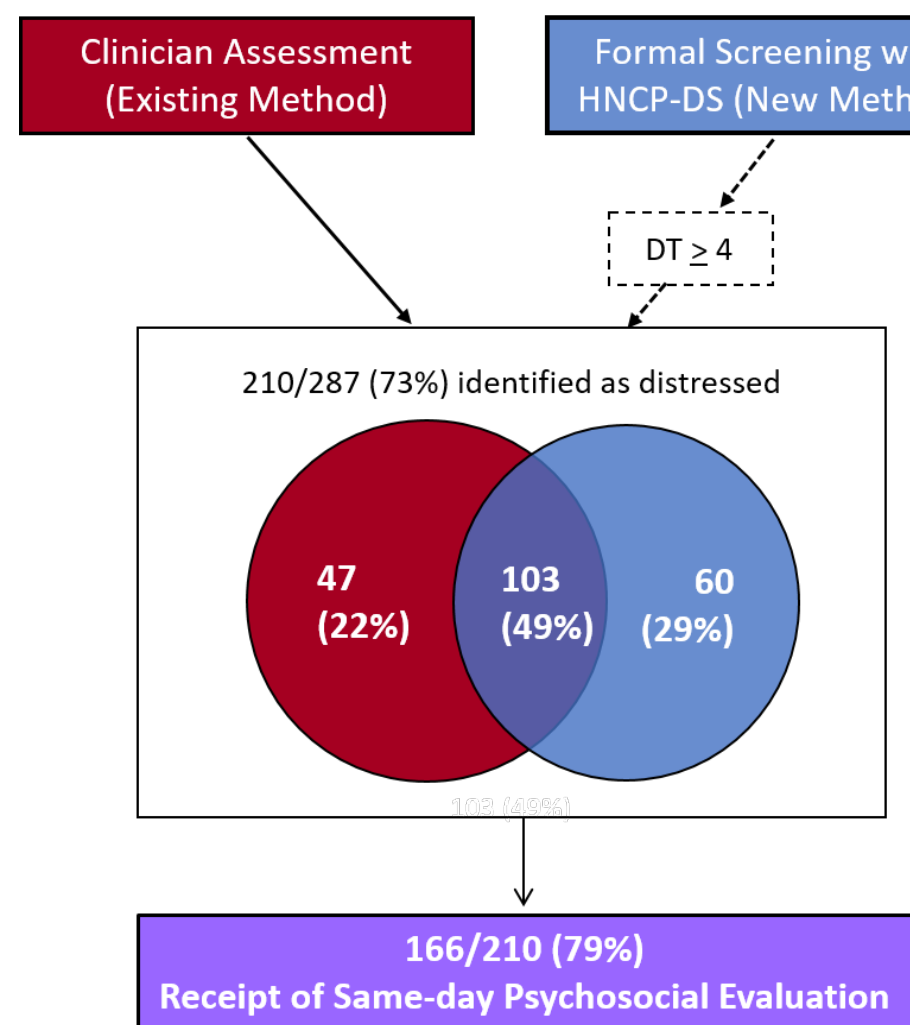


Among the 163 patients with distress (DT score ≥ 4), the resulting percentages of patients reported the following problems under the respective domains:



** p < 0.01

Evaluation of Distress Screening Implementation



Discussion:

- 57% screened positive for distress using the DT, proving feasibility of HNC distress screening
- 210 patients were identified as highly distressed using both methods, 79% of which received same-day MBT evaluation
- Limitations:
 - Low generalizability given single institution study with established multidisciplinary program
 - Sample bias as not all HNCP patients completed HNCP-DS
 - Not all patients with DT ≥ 4 received psychosocial follow-up
- Future goals include:
 - Increasing rates of psychosocial consultation for all patients with DT ≥ 4
 - Implementing distress screening longitudinally across cancer care trajectory
 - Examining the impact of distress screening and MBT follow-up on long-term patient outcomes

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