

# Implementation of the distress thermometer in the perinatal period



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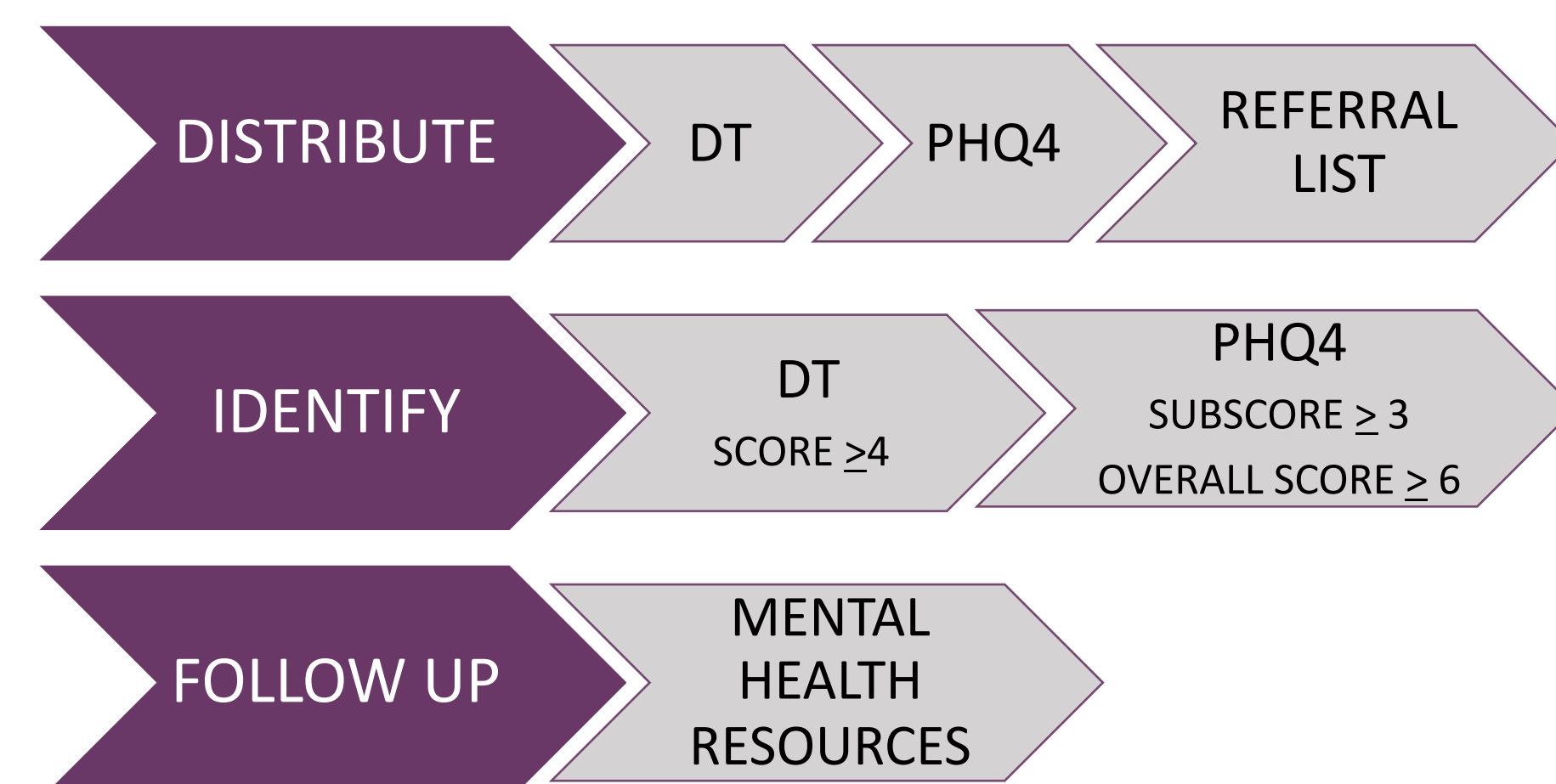
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## INTRODUCTION

- Approximately 9% of women suffer from depression and 14% of women suffer from anxiety during the perinatal period.<sup>1,2</sup>
- ACOG recommends that providers screen at least once during the perinatal period for depression and anxiety using a standardized, validated tool.<sup>3</sup> The Patient Health Questionnaire 4 (PHQ4) is a validated screening tool for both depression and anxiety in the pregnancy population.<sup>4</sup>
- Distress is defined by the American Psychological Association as unpleasant emotions involving physical and psychological symptoms.<sup>5</sup>
- The Distress Thermometer (DT) is a self-report tool recommended by the National Comprehensive Cancer Network (NCCN) that screens for symptoms of distress in patients with cancer. A score of  $\geq 4$  in this population has been validated to reflect psychologic distress. The DT consists of a 0-10 rating of distress along with yes/no list containing 5 problem area subcategories to help identify the source(s) of psychologic distress.<sup>6,7</sup> Completion of the problem list can facilitate appropriate patient education and referrals to address distress.
- The aim of this study was to determine whether the DT can be used to screen for distress and to identify problem areas/concerns most prevalent in the perinatal population.

## METHODS

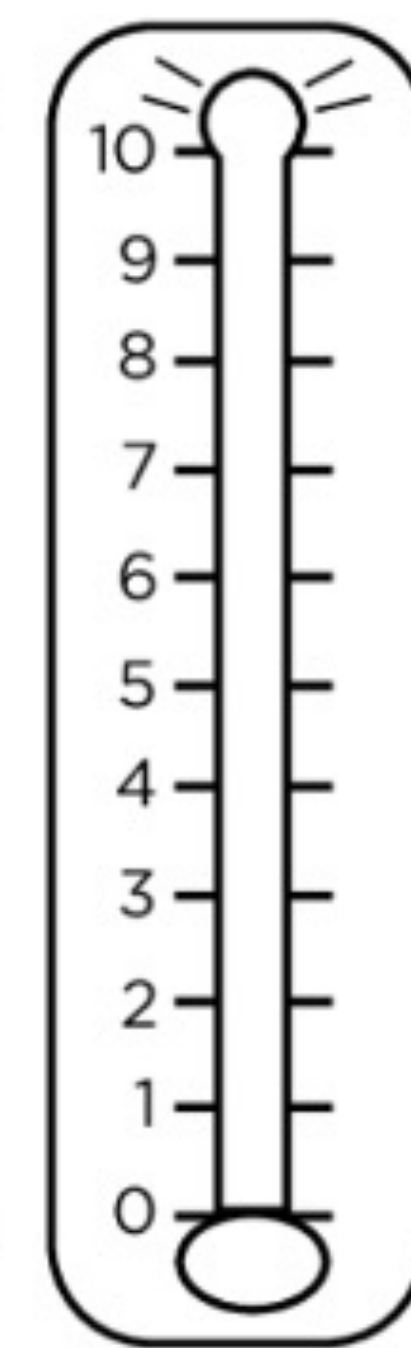
- Cross-sectional survey of patients in the perinatal period within an academic medical center on Long Island, NY from February 2023-July 2023.
- English- and Spanish-speaking patients that presented to the antenatal Maternal Fetal Medicine office were included.
- Participants completed the DT and PHQ-4.
- Descriptive and inferential statistics were calculated for comparisons of clinical characteristics and presence of problem subcategories between patients screening positive and negative on the DT. Sensitivity and specificity assessments were also performed for utility of DT in the perinatal population.



## FIGURES & TABLES

### DISTRESS THERMOMETER

Extreme distress



No distress

#### YES NO Practical Problems

- Child care
- Housing
- Insurance/financial
- Transportation
- Work/school
- Treatment decisions

#### Family Problems

- Dealing with children
- Dealing with partner
- Ability to have children
- Family health issues

#### Emotional Problems

- Depression
- Fears
- Nervousness
- Sadness
- Worry
- Loss of interest in usual activities

- Spiritual/Religious Concerns

Other Problems:

#### YES NO Physical Problems

- Appearance
- Bathing/dressing
- Breathing
- Changes in urination
- Constipation
- Diarrhea
- Eating
- Fatigue
- Feeling swollen
- Fevers
- Getting around
- Indigestion
- Memory/concentration
- Mouth sores
- Nausea
- Nose dry/congested
- Pain
- Sexual
- Skin dry/itchy
- Sleep
- Substance use
- Tingling in hands/feet

### Results of Screening with the Distress Thermometer During the Perinatal Period

	DT Positive Screen (n=70)	DT Negative Screen (n= 206)	P-values	
<b>Type of visit</b>			0.005	
	MFM consult	28 (40.0)	47 (22.8)	
	Ultrasound	42 (60.0)	159 (77.2)	
<b>Trimester</b>			0.37	
	1st	8 (11.4)	37 (18.0)	
	2nd	31 (44.3)	92 (44.7)	
	3rd	31 (44.3)	77 (37.4)	
<b>Primary Language</b>			0.19	
	English	48 (68.6)	123 (59.7)	
	Spanish	22 (31.4)	83 (40.3)	
<b>DT Problem List Subcategories</b>				
	Emotional Problems	61 (87.1)	72 (35.0)	<0.001
	Family Problems	35 (50.0)	26 (12.6)	<0.001
	Physical Problems	67 (95.7)	124 (60.2)	< 0.001
	Practical Problems	49 (70.0)	43 (20.9)	< 0.001
	Spiritual Problems	3 (4.3)	4 (1.9)	0.29
<b>Frequency of DT Problem List Subcategories</b>			<0.001	
	No problems	0 (0)	68 (33.0)	
	1 problem subcategory	5 (7.1)	53 (25.7)	
	$\geq 2$ problem subcategory	65 (92.3)	83 (40.3)	

## RESULTS

Most Common Concerns for Those Screening Positive on Distress Thermometer

- Family Problem: *Dealing with partner*
- Physical Problem: *Fatigue*
- Emotional Problem: *Nervousness & Worry*
- Practical Problem: *Work / school*

- A total of 445 patients were approached to participate in the study. Consent was obtained from 276 patients (62%).
- The distress thermometer had a 69% sensitivity (95% CI 0.58 – 0.80) and 86% specificity (95% CI 0.81 – 0.91) with a negative predictive value of 89% (95% CI 0.85 – 0.93) for identifying distress in the perinatal period.
- Twenty five percent of the patients screened positive for distress. There was a statistically significant difference in DT problem list subcategories including practical, familial, emotional, and physical problems for those who screened positive. Furthermore, those who screened positive had a significant increase in frequency of DT problem list subcategories identified (Table 1).
- There was also a statistically significant difference in the type of visit (MFM consult verses ultrasound) for patients who screened positive. There was no significant difference in trimester and primary language (Table 1).

## CONCLUSIONS

- The DT is a simple and practical tool that can be used in the perinatal period to identify patients who experience distress and direct them to appropriate resources.**
- Future studies should evaluate whether pregnant patients self-reporting elevated distress levels are at increased risk for adverse maternal and neonatal outcomes.

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