WORKSHOP

Complexities of Screening:

Rates of distress, Under recognition; Current Tools; Implementation options

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www.psycho-oncology.info/workshop

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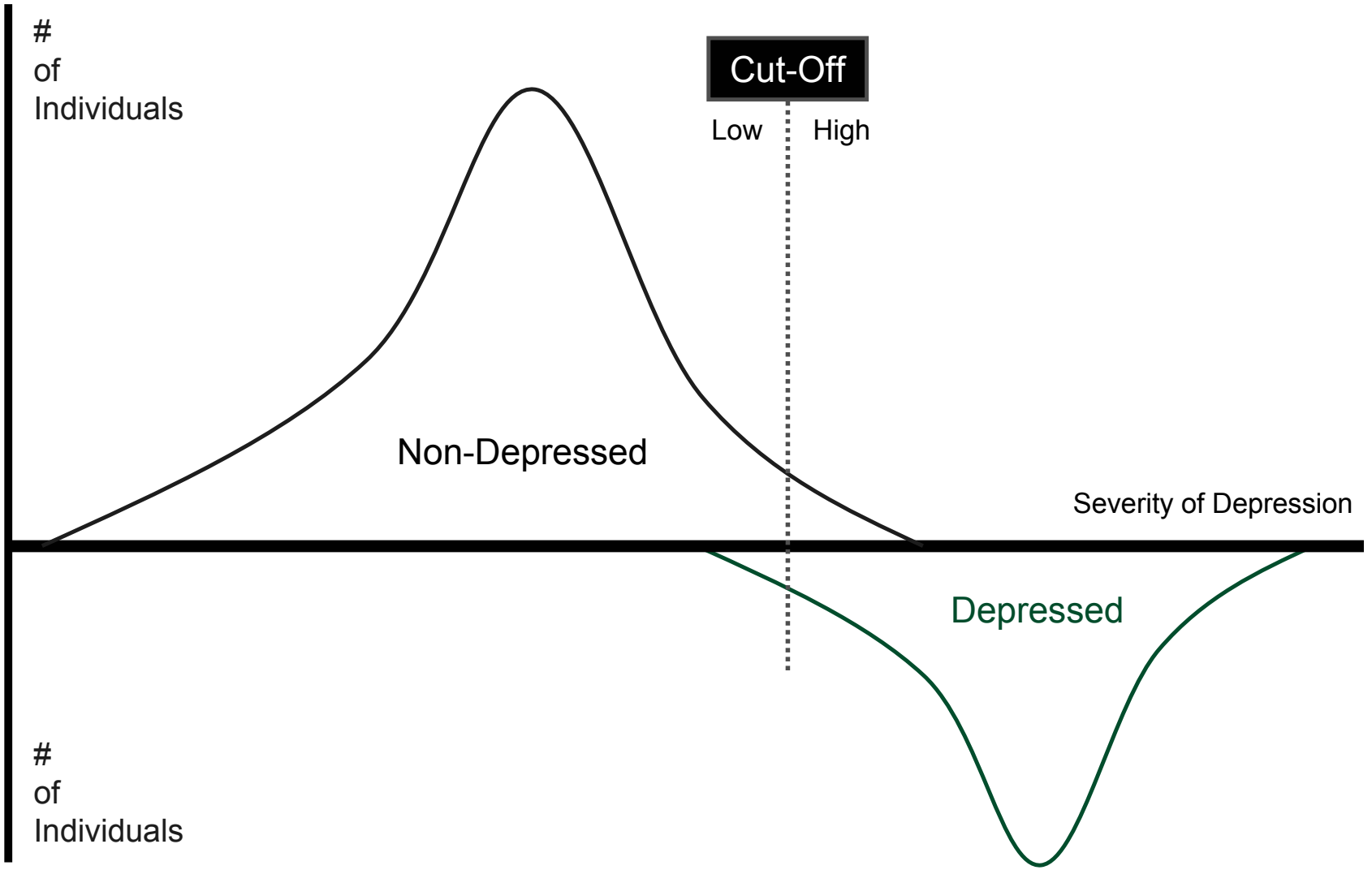
IPOS 2010

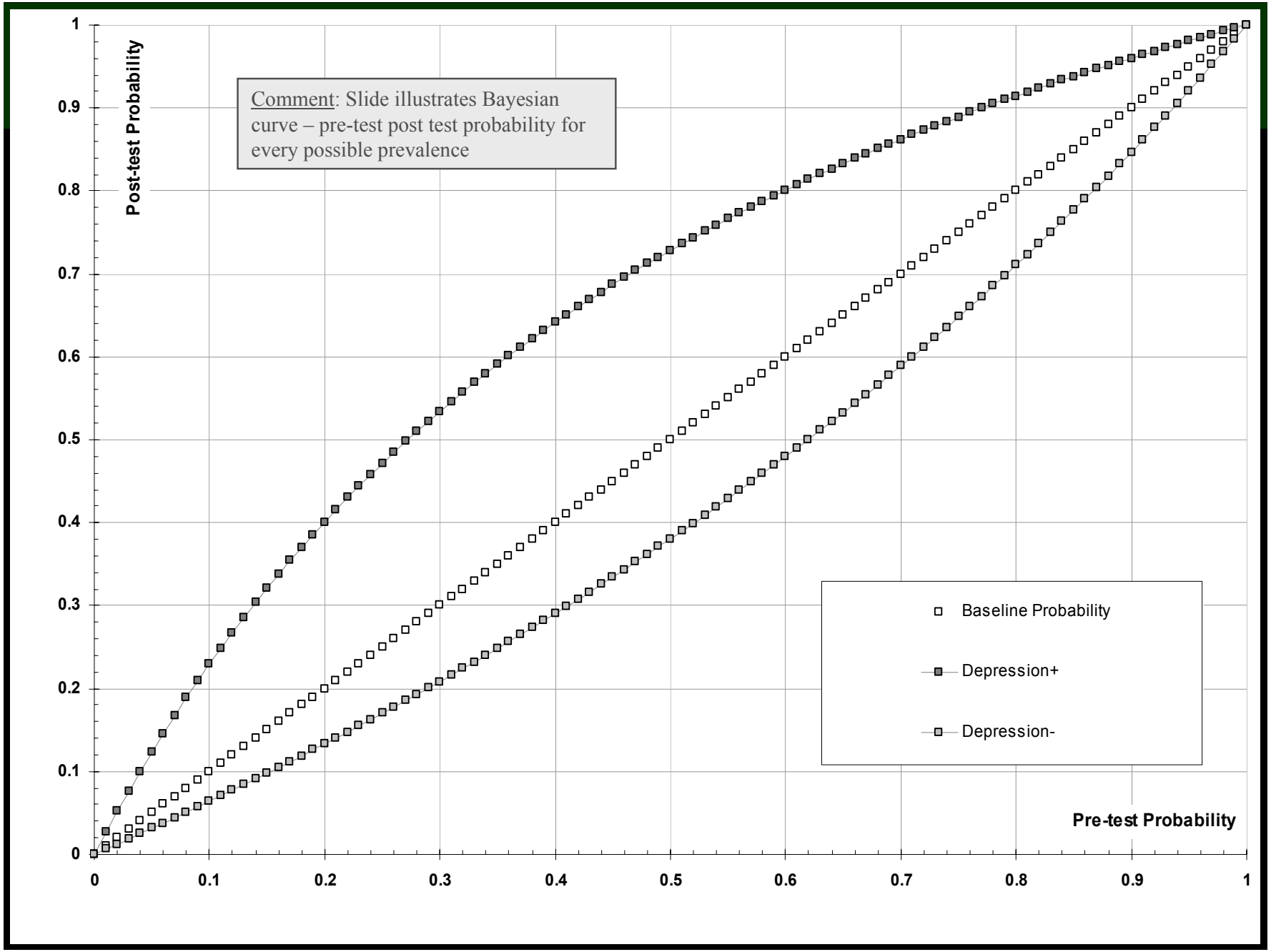
1. Principles of Screening

Definitions

Illustrations

Graphical – Screening principles

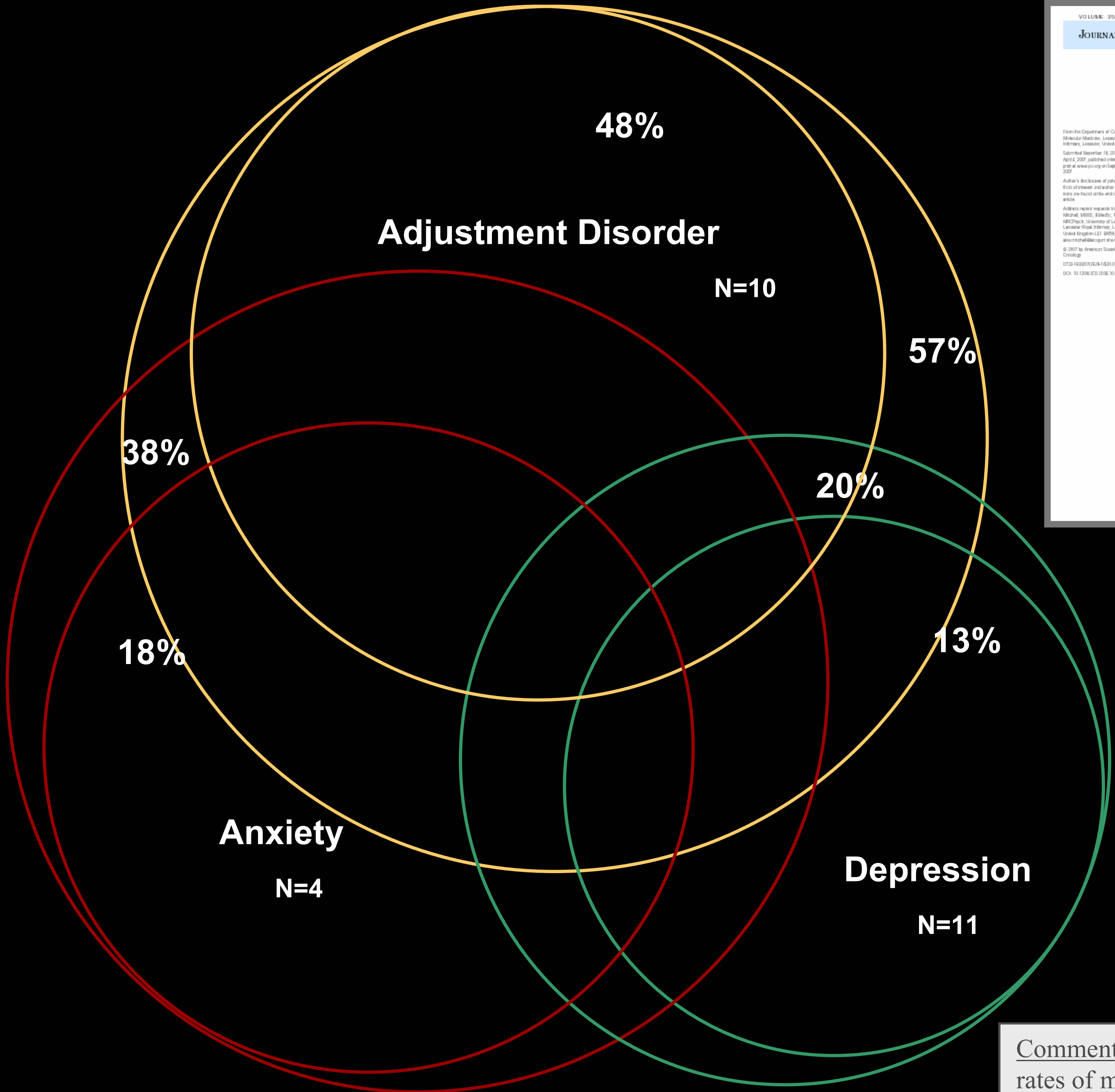



Comment: Slide illustrates Bayesian curve – pre-test post test probability for every possible prevalence
Post-test Probability
Pre-test Probability
Baseline Probability
Depression+
Depression-
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

2. How Common is Distress?

Clinician Opinion

Patient Opinion



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JOURNAL OF CLINICAL ONCOLOGY
SPECIAL ARTICLE

Accuracy of Distress Thermometer and Other Ultra-Short Methods of Detecting Cancer-Related Mood Disorders: Pooled Results From 38 Analyses

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Author's disclosures of potential conflicts of interest and author contributions are found at the end of this article.

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DOI: 10.1200/JCO.2006.10.0828

ABSTRACT

Ultra-short screening tools involving fewer than five questions have been recommended as a simple method of detecting distress, anxiety, or depression in cancer settings. Such methods have practical appeal, but their diagnostic accuracy is unclear. A literature search limited to diagnostic validity studies of ultra-short screening in cancer settings identified 38 analyses, including 19 assessing the Distress Thermometer alone, involving a total of 6,414 unique patients. The pooled ability of ultra-short methods to detect depression was given by a sensitivity of 78.4%, a specificity of 66.8%, a positive predictive value (PPV) of 34.2%, and a negative predictive value (NPV) of 93.4%. Thus these tools were very good at excluding possible cases of depression but poor at confirming a suspected diagnosis. The pooled ability of ultra-short methods to detect anxiety was given by a sensitivity of 77.3% and a specificity of 56.6% (PPV, 55.2%; NPV, 80.25%) and for distress a sensitivity of 78.3% and a specificity of 66.5% (PPV, 59.7%; NPV, of 82.8%). Results using the Distress Thermometer alone were similar. Scores of integrated accuracy, using the Youden index and diagnostic odds ratio, suggested modest overall accuracy with least success in diagnosing anxiety disorders. Ultra-short methods were modestly effective in screening for mood disorders. Their rule-in ability was poorer than their rule-out ability. Ultra-short methods cannot be used alone to diagnose depression, anxiety, or distress in cancer patients but they may be considered as a first-stage screen to rule out cases of depression.

J Clin Oncol 25. © 2007 by American Society of Clinical Oncology

INTRODUCTION

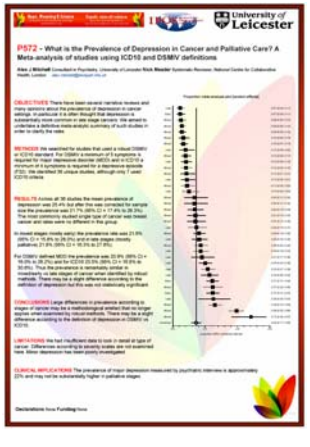
Depression, anxiety, and distress are common during the course of cancer.[1] Three large-scale studies suggest that the overall prevalence of distress in unselected cancer patients is greater than 30%.[2-4] Distress, anxiety, and depression influence quality of life as well as satisfaction with and participation in medical treatment.[5-8] Yet syndromal anxiety and depression are often overlooked by busy cancer professionals in palliative and nonpalliative settings.[4,9-12] There is also a tendency to underestimate and undertreat depression when it is most needed, which is in the most severe forms.[7,13] In addition, only the minority of detected cases are referred for further help or offered psychological treatment.[14] In one study of 472 low-income women with breast or gynecological cancer, 12% of those with major depression were prescribed antidepressants and 5% received psychological treatment.[15] No study has suggested that these results are atypical.

To some extent, the low detection rate of distress and related psychiatric disorders appears to be associated with pressure of workload for cancer professionals.[16] Most clinicians working in cancer care do not use screening instruments routinely. In one survey of medical staff working in palliative medicine, 50% never used screening tool.[17] Similarly, in a survey of 123 mixed cancer professionals, 64% relied on clinical skills alone to detect depression, and only 8% routinely used a screening tool to detect mood disorder or distress.[18] For this reason, it has been suggested that short screening instruments (of fewer than 15 items) might be acceptable and enhance clinicians' ability to detect mood disorders when present and exclude mood disorders when absent. Examples of such short instruments include the 14-item Hospital Depression and Anxiety Scale (consisting of a seven-item depression and seven-item anxiety score)[17] and the nine-item Patient Health Questionnaire (PHQ9).[20] These questionnaires usually take more than 5 minutes to complete. Recent work shows that only one third of cancer clinicians would be prepared to use these short instruments in routine care and only 1% would be prepared to use a long method consisting of more than 10 items.[18] In an attempt to improve acceptability for patients and clinicians alike, a number of

Comment: Slide illustrates meta-analytic rates of mood disorder

Prevalence of depression:
21.7% (95% CI = 17.4% to 26.3%) [n=36]

In late stages (mostly palliative) **21.8%**
For DSMIV defined MDD the prevalence was **20.9%**
For ICD10 **23.5%**



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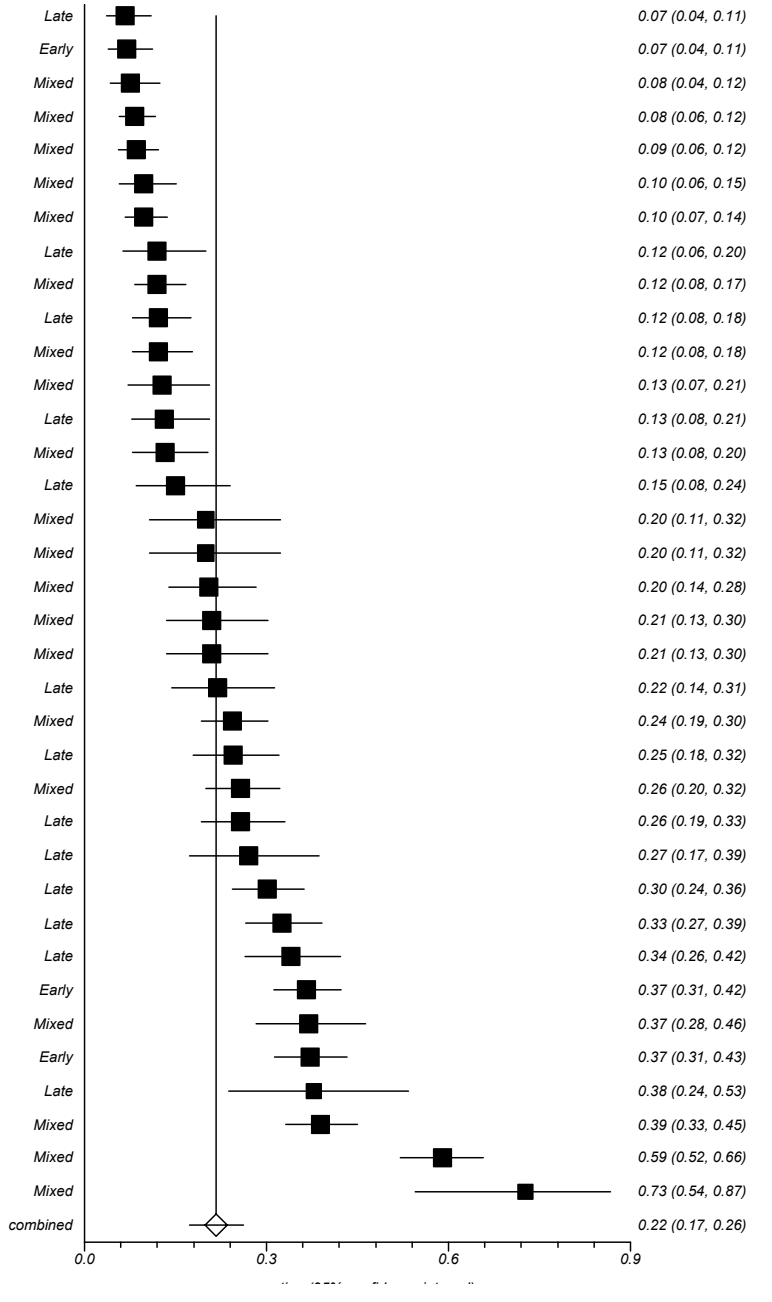
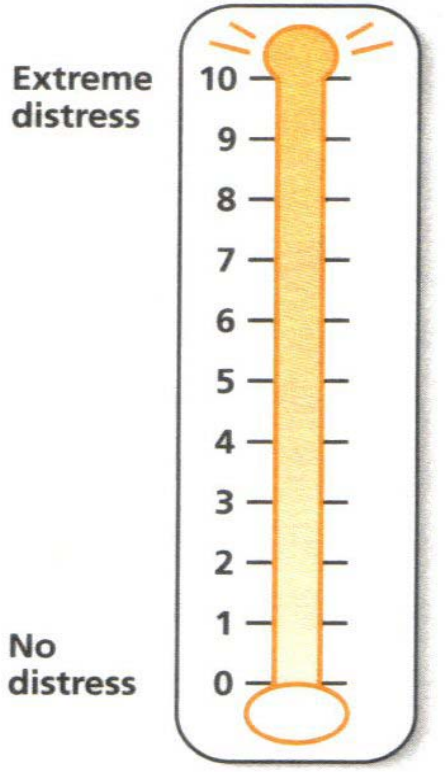
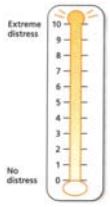


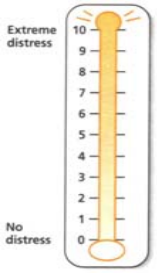
Distress Thermometer





Distress Thermometer – Pooled Table

Score	Ransom 2006	Tuinman 2008	Mitchell 2009	Lord 2010	Hoffman 2004	Gessler 2009	Clover 2009	Jacobsen 2005	Sum	Proportion
Zero	**68**	**38**	**61**	**123**	**14**	**27**	**65**	**71**	**467**	18.4%
One	**72**	**31**	**42**	**68**	**5**	**26**	**39**	**46**	**329**	12.9%
Two	**77**	**22**	**35**	**44**	**5**	**18**	**30**	**54**	**285**	11.2%
Three	**65**	**37**	**42**	**46**	**8**	**23**	**45**	**46**	**312**	12.3%
Four	**51**	**29**	**29**	**30**	**8**	**7**	**21**	**31**	**206**	8.1%
Five	**41**	**46**	**62**	**40**	**11**	**13**	**41**	**48**	**302**	11.9%
Six	**38**	**32**	**23**	**28**	**2**	**16**	**26**	**31**	**196**	7.7%
Seven	**36**	**21**	**23**	**38**	**2**	**15**	**32**	**16**	**183**	7.2%
Eight	**18**	**12**	**18**	**29**	**6**	**9**	**19**	**15**	**126**	5.0%
Nine	**16**	**5**	**8**	**14**	**3**	**3**	**13**	**9**	**71**	2.8%
Ten	**9**	**4**	**7**	**20**	**4**	**0**	**9**	**13**	**66**	2.6%
Sum	**491**	**277**	**350**	**480**	**68**	**157**	**340**	**380**	**2543**	
Proportion	19.3%	10.9%	13.8%	18.9%	2.7%	6.2%	13.4%	14.9%		



Distress Thermometer – Pooled

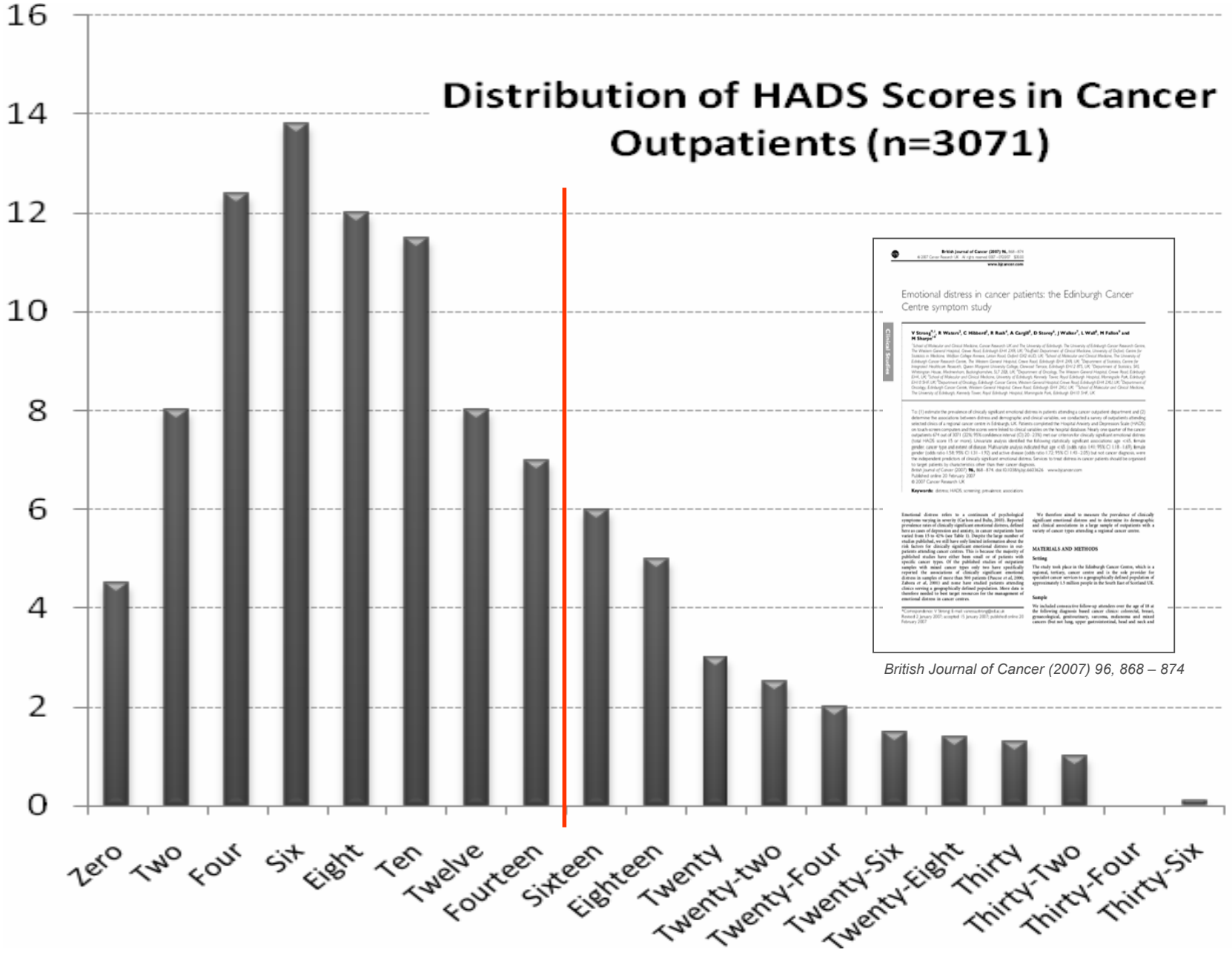
Proportion

Insignificant | Minimal | Mild | Moderate | Severe

20.0%
18.0%
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%

Zero	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten
18.4%	12.9%	11.2%	12.3%	8.1%	11.9%	7.7%	7.2%	5.0%	2.8%	2.6%

p124



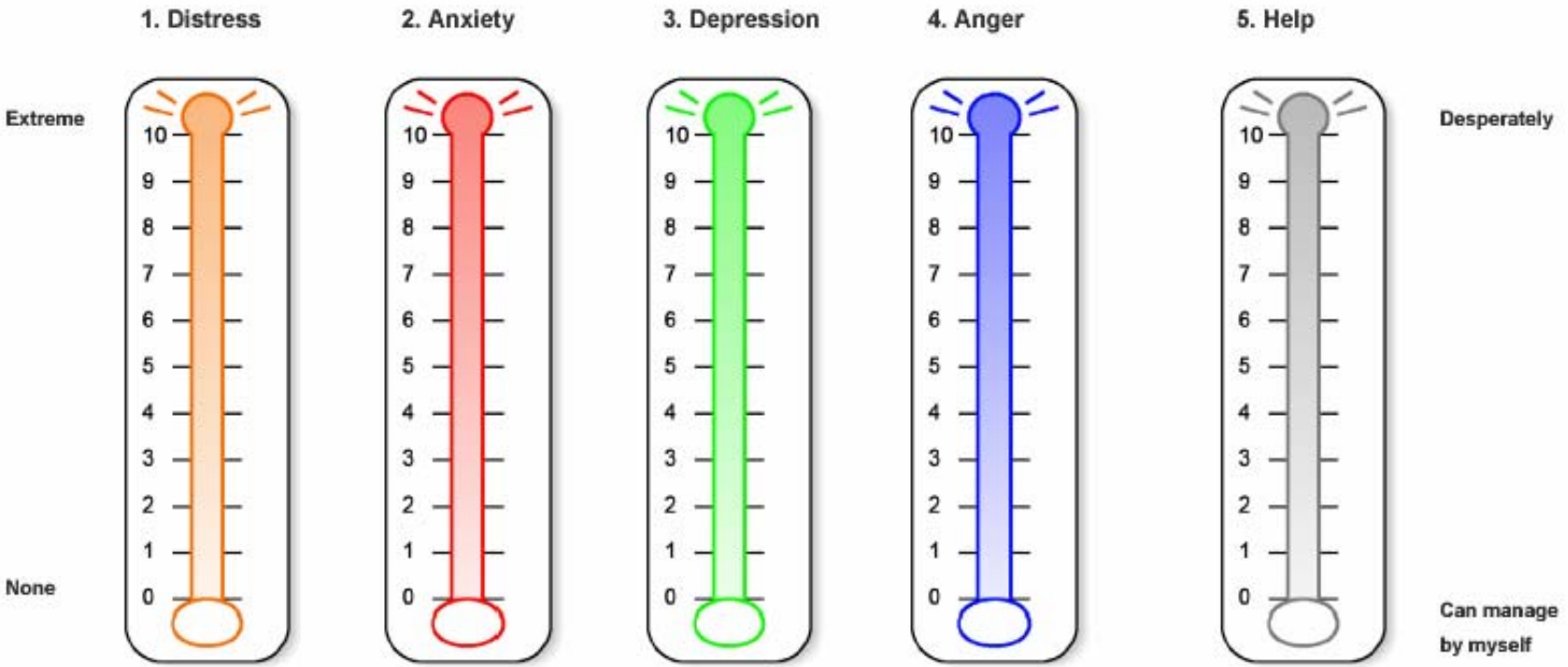
Emotional distress in cancer patients: the Edinburgh Cancer Centre symptom study

British Journal of Cancer (2007) 96, 868 – 874

Emotion Thermometers 5 items

Instructions

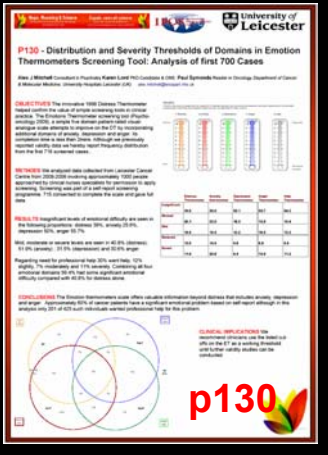
In the first four columns, please mark the number (0-10) that best describes how much emotional upset you have been experiencing in the past week, including today. In the final column please indicate how much you need help for these concerns.

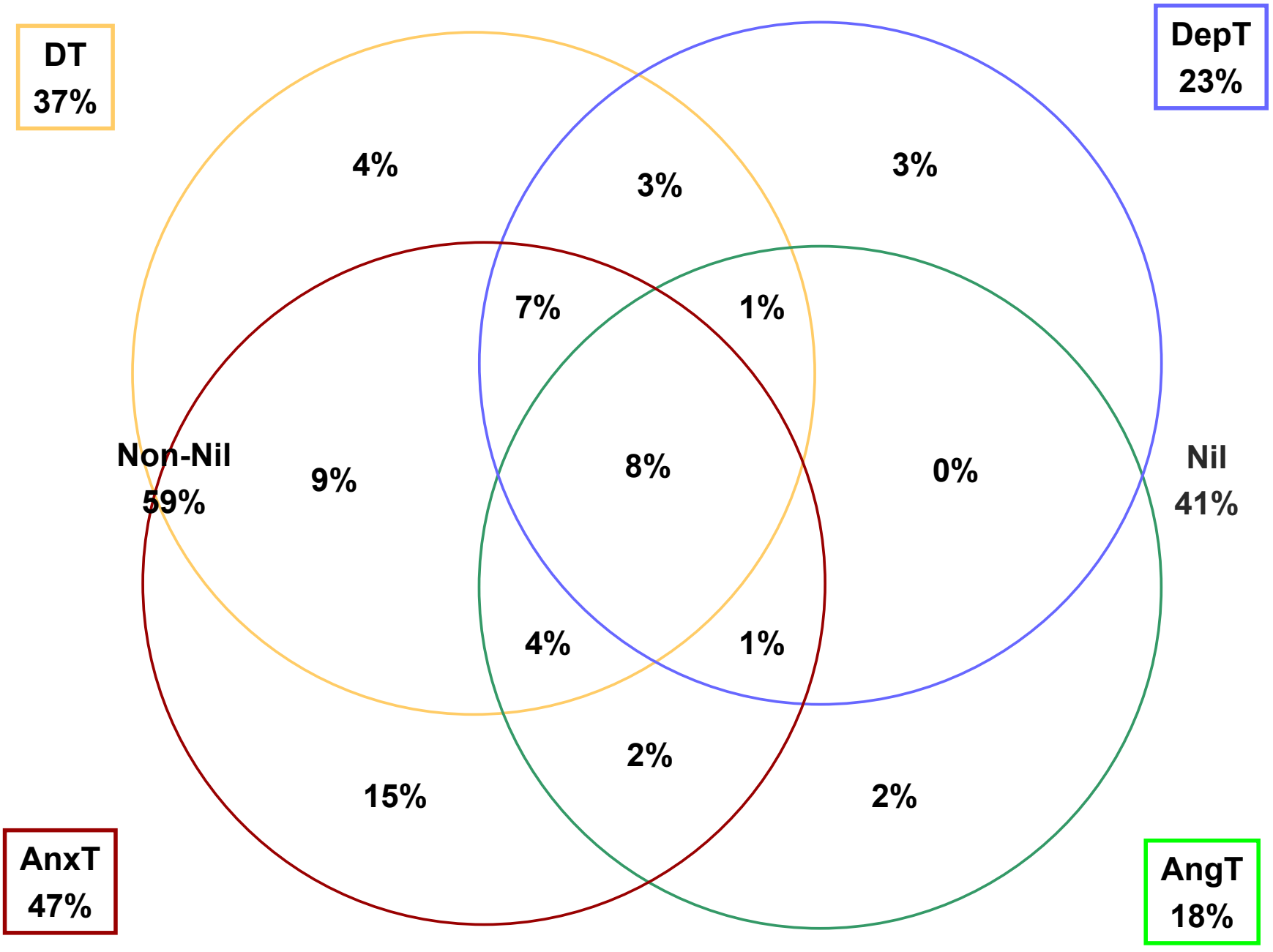


Adapted from the NCCN Distress Thermometer. Alex Mitchell ©

ET - Table of Cut-Points

	Distress Thermometer	Anxiety thermometer	Depression Thermometer	Anger Thermometer	Help Thermometer	Cut-point
Insignificant	39.0	25.6	50.1	55.7	54.3	0,1
Minimal	20.1	22.5	18.3	13.6	15.4	2,3
Mild	16.9	16.5	12.2	10.5	12.2	4,5
Moderate	12.0	14.5	9.8	6.6	6.6	6,7
Severe	11.9	20.8	9.5	13.6	11.2	8,9,10

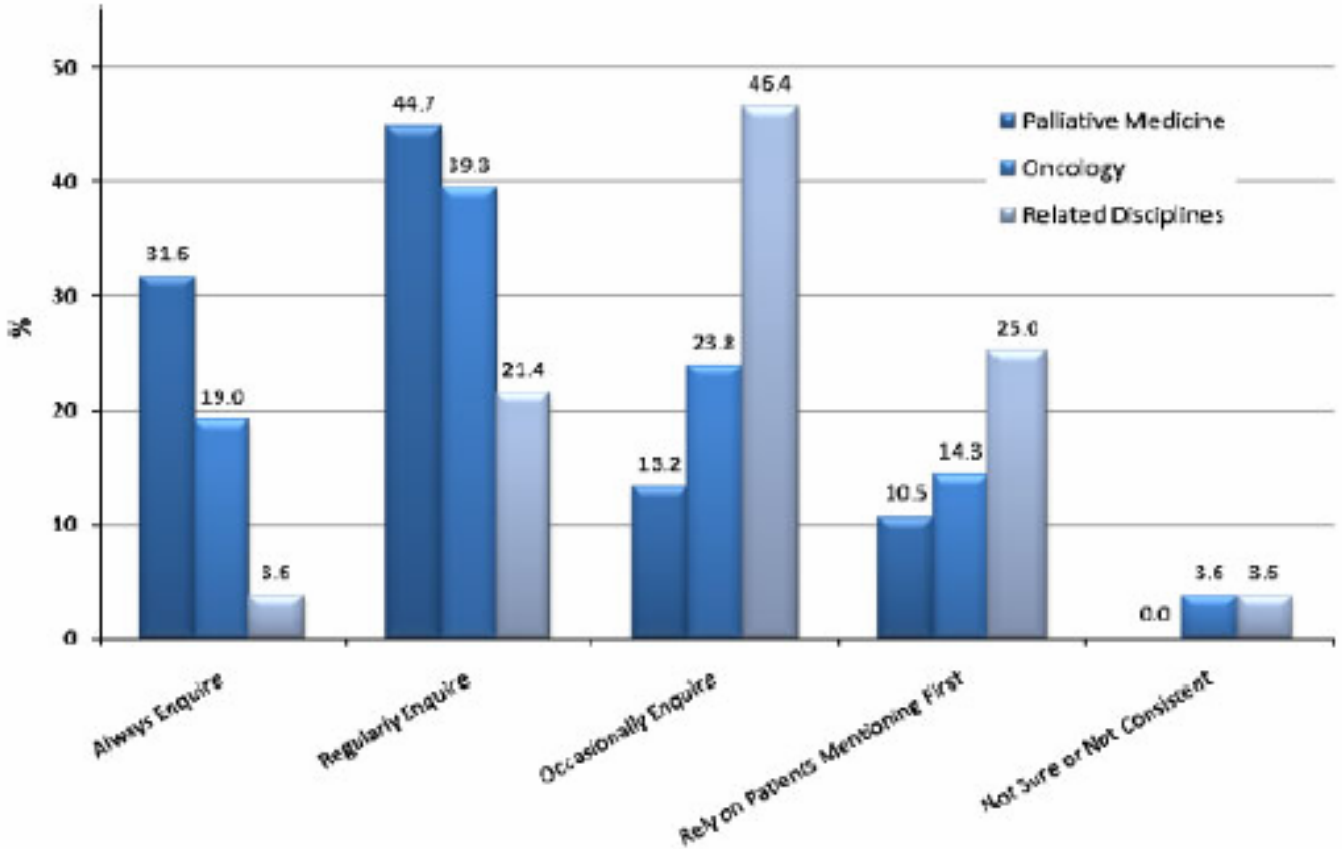



DT
37%
DepT
23%
4%
3%
3%
7%
1%
Non-Nil
59%
9%
8%
0%
Nil
41%
4%
1%
2%
15%
2%
AnxT
47%
AngT
18%

3. Are We Looking for Distress?

How Often

What method?

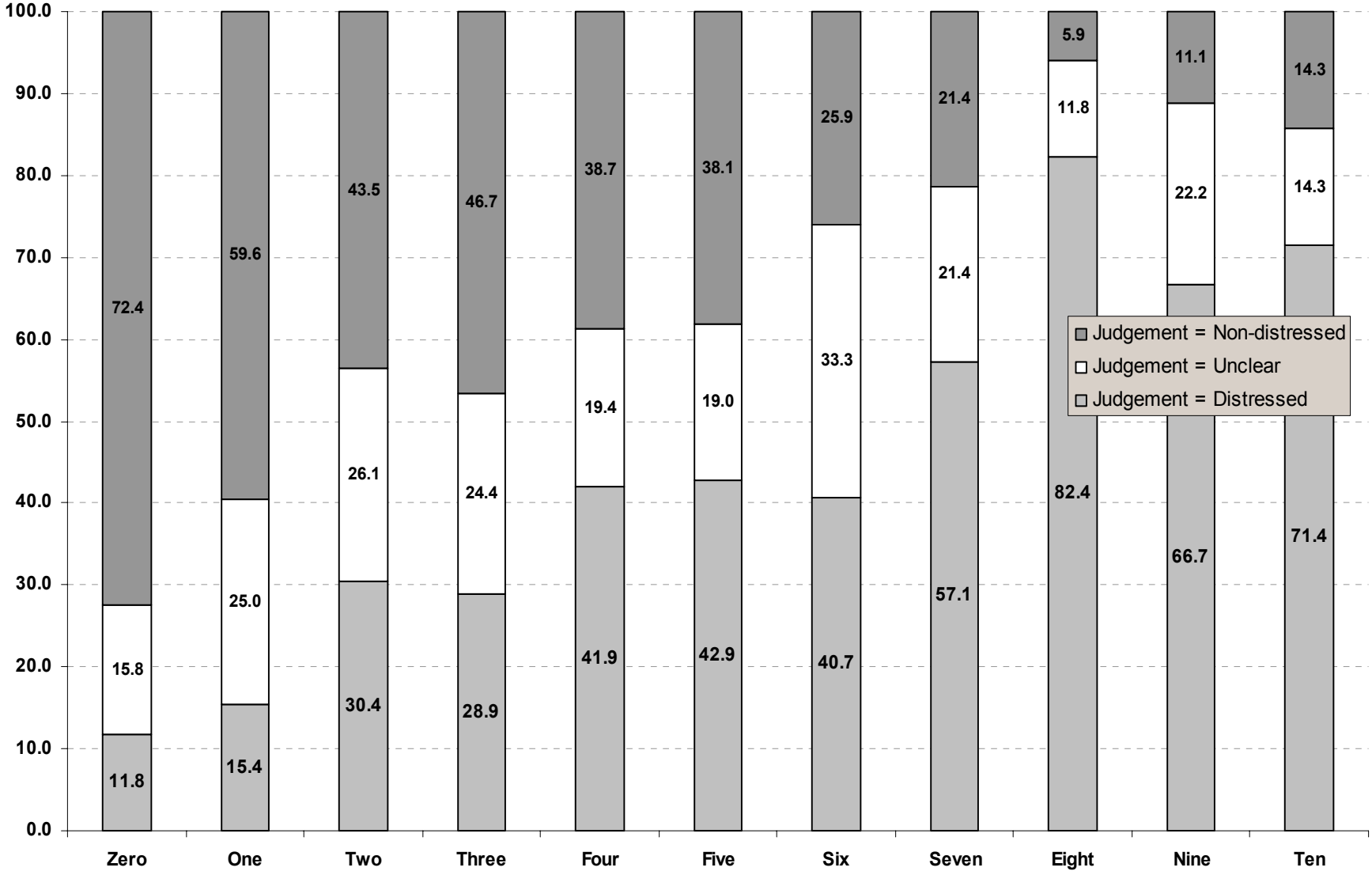


n=226

Comment: Frequency of cancer specialists enquiry about depression/distress from Mitchell et al (2008)

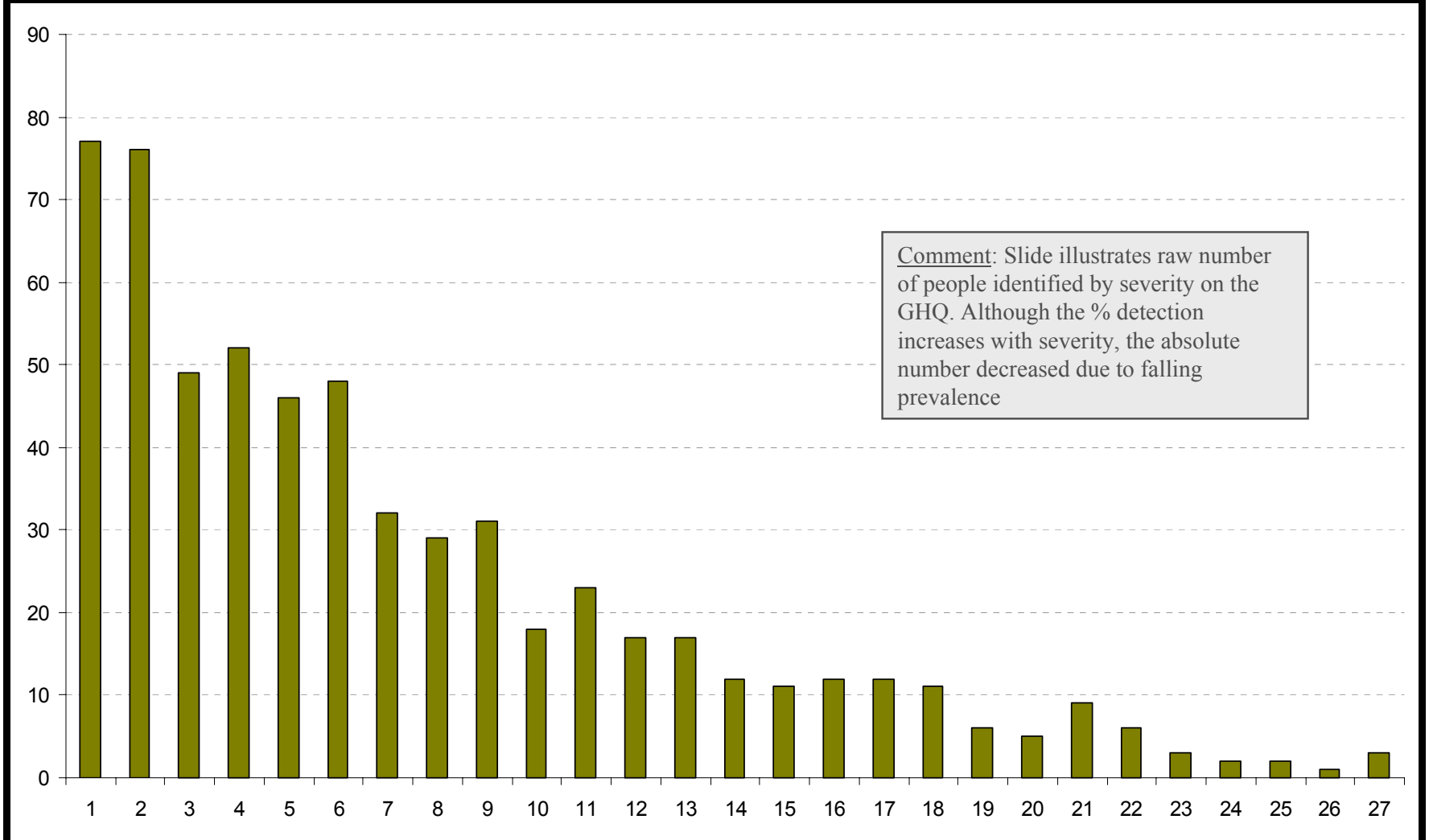
4. Are We finding it?

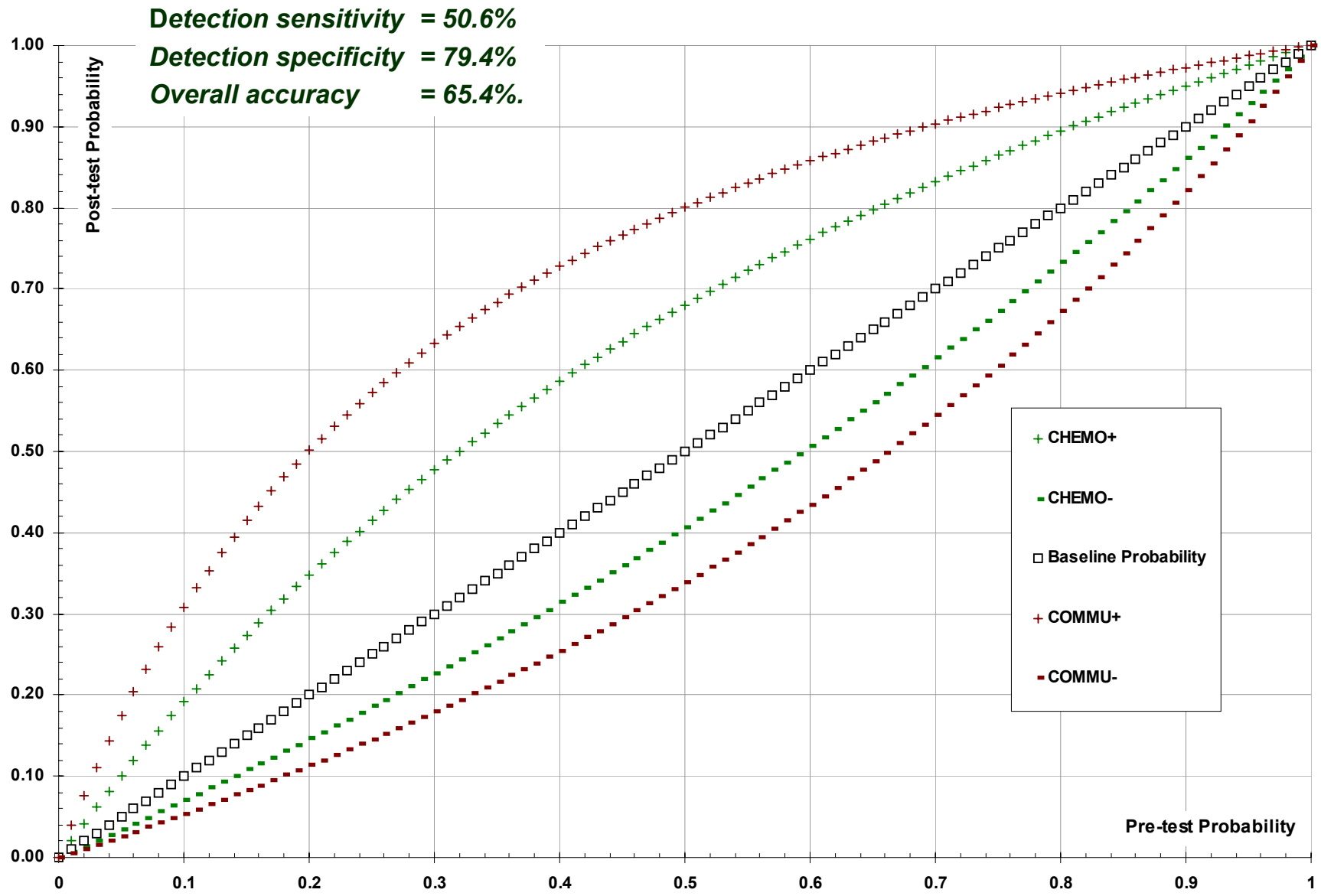
How successful are we (routinely)?


100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
72.4
15.8
11.8
59.6
25.0
15.4
43.5
26.1
30.4
46.7
24.4
28.9
38.7
19.4
41.9
38.1
19.0
42.9
25.9
33.3
40.7
21.4
21.4
57.1
5.9
11.8
82.4
11.1
22.2
66.7
14.3
14.3
71.4
Judgement = Non-distressed
Judgement = Unclear
Judgement = Distressed
Zero
One
Two
Three
Four
Five
Six
Seven
Eight
Nine
Ten

GP Accuracy – Detection of Distress by GHQ Score

McCall et al (2007) Primary Care Psychiatry - Recognition by Severity





Comment: Slide illustrates performance of chemotherapy vs community nurses in oncology

T125 – Sat am

Testing Clinicians: A Meta-Analysis

Methods (currently unpublished)

12 studies reported in 7 publications.
- 2 studies examined detection of anxiety,
- 8 broadly defined depression (includes HADS-T)
- 3 strictly defined depression and 7 broadly defined distress.

9 studies involved medical staff and 2 studies nursing staff.

Gold standard tools including GHQ60, GHQ12 HADS-T, HADS-D, Zung and SCID.

The total sample size was 4786 (median 171).

Testing Clinicians: A Meta-Analysis

All cancer professionals
SE =39.5% and SP =77.3%.

Oncologists
SE =38.1% and SP = 78.6%; a fraction correct of 65.4%.

By comparison nurses
SE = 73% and SP = 55.4%; FC = of 60.0%.

When attempting to detect anxiety oncologists managed
SE = 35.7%, SP = 89.0%, FC 81.3%.

Presented at IPOS2009

5. Screening Options

Ultra-short

Brief

Lengthy (conventional)

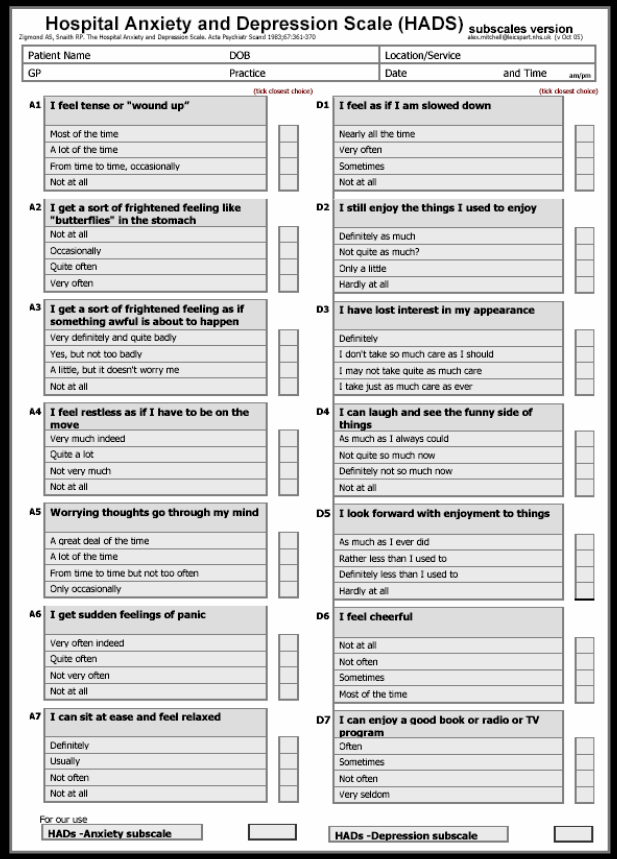
Clinicians Methods to Evaluate Depression

Conventional Scales

Short (5-10) | **Long (10+)**

example: **HADS-D**

example: **BDI**



Hospital Anxiety and Depression Scale (HADS) subscales version

Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. Acta Psychiatr Scand 1983;67:361-370 alecmitchell@doctors.org.uk (v Oct 05)

Patient Name	DOB	Location/Service
GP	Practice	Date and Time am/pm

(tick closest choice)

A1	**I feel tense or "wound up"**		D1	**I feel as if I am slowed down**	
	Most of the time			Nearly all the time	
	A lot of the time			Very often	
	From time to time, occasionally			Sometimes	
	Not at all			Not at all	
A2	**I get a sort of frightened feeling like "butterflies" in the stomach**		D2	**I still enjoy the things I used to enjoy**	
	Not at all			Definitely as much	
	Occasionally			Not quite as much?	
	Quite often			Only a little	
	Very often			Hardly at all	
A3	**I get a sort of frightened feeling as if something awful is about to happen**		D3	**I have lost interest in my appearance**	
	Very definitely and quite badly			Definitely	
	Yes, but not too badly			I don't take so much care as I should	
	A little, but it doesn't worry me			I may not take quite as much care	
	Not at all			I take just as much care as ever	
A4	**I feel restless as if I have to be on the move**		D4	**I can laugh and see the funny side of things**	
	Very much indeed			As much as I always could	
	Quite a lot			Not quite so much now	
	Not very much			Definitely not so much now	
	Not at all			Not at all	
A5	**Worrying thoughts go through my mind**		D5	**I look forward with enjoyment to things**	
	A great deal of the time			As much as I ever did	
	A lot of the time			Rather less than I used to	
	From time to time but not too often			Definitely less than I used to	
	Only occasionally			Hardly at all	
A6	**I get sudden feelings of panic**		D6	**I feel cheerful**	
	Very often indeed			Not at all	
	Quite often			Not often	
	Not very often			Sometimes	
	Not at all			Most of the time	
A7	**I can sit at ease and feel relaxed**		D7	**I can enjoy a good book or radio or TV program**	
	Definitely			Often	
	Usually			Sometimes	
	Not often			Not often	
	Not at all			Very seldom	

For our use

HADs -Anxiety subscale ____ **HADs -Depression subscale** ____

Comment: This is a reminder of the structure of the HADS scale, this version adapter for cancer.

Hospital Anxiety and Depression Scale (HADS) subscales version

Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. Acta Psychiatr Scand 1983;67:361-370

alex.mitchell@leicspart.nhs.uk (v Oct 05)

Patient Name	DOB	Location/Service
GP	Practice	Date and Time am/pm

(tick closest choice)

A1	**I feel tense or "wound up"**	
	Most of the time	
	A lot of the time	
	From time to time, occasionally	
	Not at all	
A2	**I get a sort of frightened feeling like "butterflies" in the stomach**	
	Not at all	
	Occasionally	
	Quite often	
	Very often	
A3	**I get a sort of frightened feeling as if something awful is about to happen**	
	Very definitely and quite badly	
	Yes, but not too badly	
	A little, but it doesn't worry me	
	Not at all	
A4	**I feel restless as if I have to be on the move**	
	Very much indeed	
	Quite a lot	
	Not very much	
	Not at all	
A5	**Worrying thoughts go through my mind**	
	A great deal of the time	
	A lot of the time	
	From time to time but not too often	
	Only occasionally	
A6	**I get sudden feelings of panic**	
	Very often indeed	
	Quite often	
	Not very often	
	Not at all	
A7	**I can sit at ease and feel relaxed**	
	Definitely	
	Usually	
	Not often	
	Not at all	

(tick closest choice)

D1	**I feel as if I am slowed down**	
	Nearly all the time	
	Very often	
	Sometimes	
	Not at all	
D2	**I still enjoy the things I used to enjoy**	
	Definitely as much	
	Not quite as much?	
	Only a little	
	Hardly at all	
D3	**I have lost interest in my appearance**	
	Definitely	
	I don't take so much care as I should	
	I may not take quite as much care	
	I take just as much care as ever	
D4	**I can laugh and see the funny side of things**	
	As much as I always could	
	Not quite so much now	
	Definitely not so much now	
	Not at all	
D5	**I look forward with enjoyment to things**	
	As much as I ever did	
	Rather less than I used to	
	Definitely less than I used to	
	Hardly at all	
D6	**I feel cheerful**	
	Not at all	
	Not often	
	Sometimes	
	Most of the time	
D7	**I can enjoy a good book or radio or TV program**	
	Often	
	Sometimes	
	Not often	
	Very seldom	

For our use

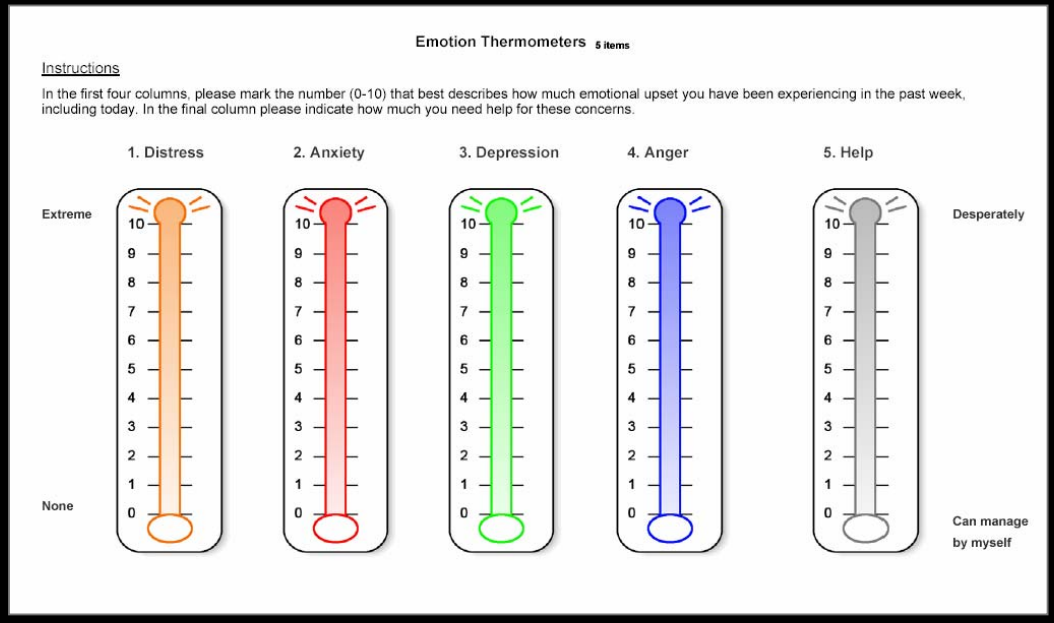
HADs -Anxiety subscale

HADs -Depression subscale

Clinicians Methods to Evaluate Depression

- Conventional Scales
  - Short (5-10)
  - Long (10+)
- **Ultra-Short (<5)**

example



Emotion Thermometers 5 items

Instructions

In the first four columns, please mark the number (0-10) that best describes how much emotional upset you have been experiencing in the past week, including today. In the final column please indicate how much you need help for these concerns.

1. Distress	2. Anxiety	3. Depression	4. Anger	5. Help

Extreme — 10 9 8 7 6 5 4 3 2 1 0 — None

Desperately

Can manage by myself

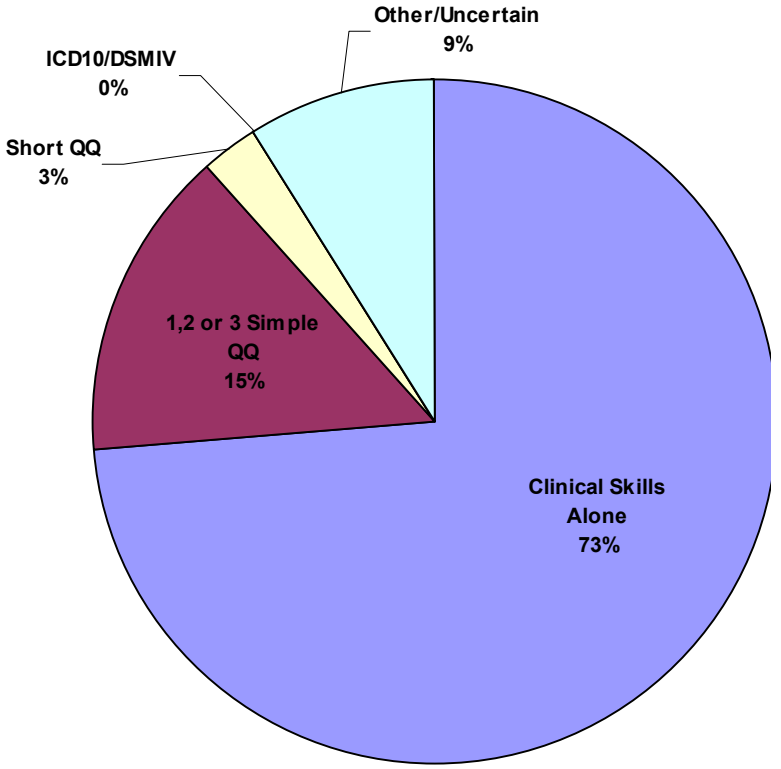
Clinicians Methods to Evaluate Depression

- Unassisted Clinician
  - Untrained
  - Trained
    - example
      
    - Accuracy?
      - Routine
- Ultra-Short (<5)
  - Acceptability ?
    - Accuracy?
      - Implementation
- Conventional Scales
  - Short (5-10)
  - Long (10+)

vs

Comment: schematic overview of methods to evaluate depression

Cancer Staff
Current Method (n=226)



Psycho-Oncology
Psycho-Oncology (in press)
Published online in Wiley InterScience (www.interscience.wiley.com). **DOI:** 10.1002/pon.1228

Acceptability of common screening methods used to detect distress and related mood disorders—preferences of cancer specialists and non-specialists

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[2]Leicester General Hospital, Leicester, UK
[3]Medical School, University of Leicester, UK
[4]Psycho-oncology, Leicester General Hospital, Leicester, UK

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Abstract

A new questionnaire of clinicians' attitudes and practices in relation to screening for mood disorder was distributed to 300 cancer professionals (specialists and non-specialists) working across the UK. From 226 (75.3%) health professionals working in cancer care who responded, approximately two-thirds always or regularly attempted to detect mood disorder during consultations but a substantial minority relied on patients spontaneously mentioning an emotional issue. The highest rate of routine questioning was performed by clinicians working in palliative medicine (76.3%) as well as nurse specialists working in all areas (72%). Despite these relatively high rates of enquiry, 10% or less of all specialists used a validated questionnaire, most preferring to rely on their own clinical skills or recalling the two simple questions of the short Patient Health Questionnaire (PHQ2). Staff suggested that ideal screening practice was to use one, two or three simple questions or a short validated questionnaire but not to refer to a specialist for a diagnosis. The main barrier to successful screening was lack of time but insufficient training and low confidence were also influential. Once distress was detected, 90% of nurses but only 40% of doctors were prepared to give distressed patients as much time as they needed. Predictors of clinicians' willingness to use more advanced screening methods were length of follow-up appointments and time clinicians were prepared to spend detecting distress. We suggest that future field studies of screening tools should also measure the issue of acceptability.
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Accepted: 19 April 2007

Keywords: screening; detection; anxiety; distress; depression; Distress Thermometer; cancer and oncology

Introduction

According to the UK National Screening Committee screening is a clinical action 'by which members of a defined population, who do not necessarily perceive they are at risk of, or are already affected by a disease or its complications, are asked a question or offered a test, to identify those individuals who are more likely to be helped than harmed by further tests or treatment to reduce the risk of a disease or its complications' [1]. In the context of cancer care in the UK, the Guidelines for Supportive & Palliative Care from the National Institute for Health and Clinical Excellence (NICE) endorse that 'Professionals operating at this level should be able to screen for psychological distress at key points in the patient pathway (Recommendation 5.2)' [2]. This document does not mention a specific tool but in the 2004 NICE guidance on 'Management of depression in primary and secondary care' two simple questions analogous to those used in the Patient Health Questionnaire (PHQ2) are recommended with grade B evidence [3]. These are 'During the last month, have you often been bothered by feeling down, depressed or hopeless?' and 'During the last month, have you often been bothered by having little interest or pleasure in doing things?'

In the US, the National Comprehensive Cancer Network (NCCN) [4], suggest 'To ensure that distress in cancer patients is recognized, the panel recommends that all patients be assessed in the waiting room using a simple diagnostic tool comprising of the 'Distress Thermometer' (DIS-A) to assess the level of distress and the accompanying 'Problem List,' to identify the causes for distress.' The panel also mentions the 27-item Functional Assessment of Cancer Therapy-General (FACT-G) quality-of-life scale [5] and the Brief Symptom Index which has both an 18-item and a

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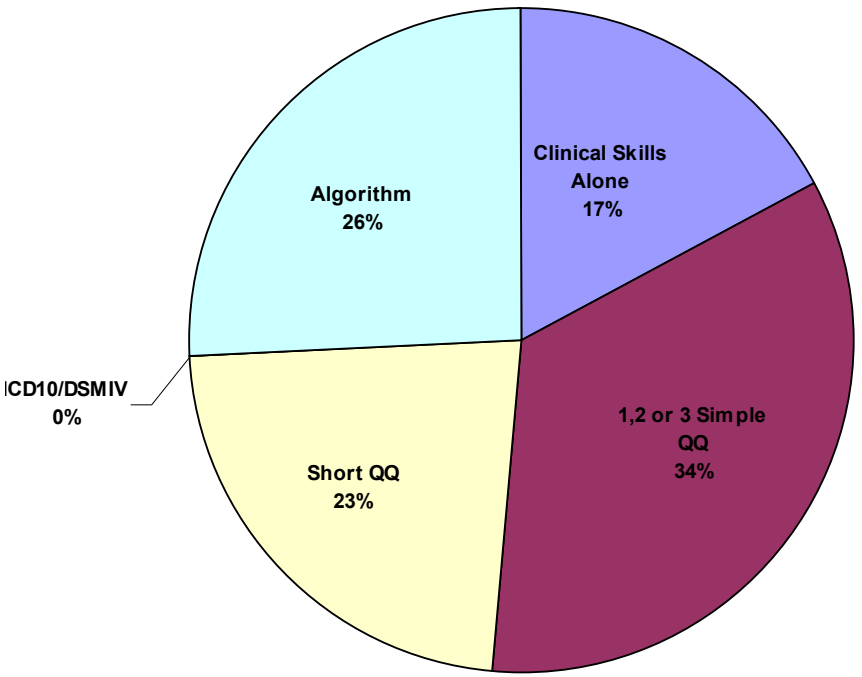
Comment: Current preferred method of eliciting symptoms of distress/depression

Cancer Staff
Ideal Method (n=226)



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Acceptability of common screening methods used to detect distress and related mood disorders—preferences of cancer specialists and non-specialists

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Abstract

A new questionnaire of clinicians' attitudes and practices in relation to screening for mood disorder was distributed to 300 cancer professionals (specialists and non-specialists) working across the UK. From 226 (75.3%) health professionals working in cancer care who responded, approximately two-thirds always or regularly attempted to detect mood disorder during consultations but a substantial minority relied on patients spontaneously mentioning an emotional issue. The highest rate of routine questioning was performed by clinicians working in palliative medicine (76.7%) as well as nurse specialists working in all areas (72%). Despite these relatively high rates of enquiry, 10% or less of all specialists used a validated questionnaire, most preferring to rely on their own clinical skills or recalling the two simple questions of the short Patient Health Questionnaire (PHQ2). Staff suggested that ideal screening practice was to use one, two or three simple questions or a short validated questionnaire but not to refer to a specialist for a diagnosis. The main barrier to successful screening was lack of time but insufficient training and low confidence were also influential. Once distress was detected, 90% of nurses but only 40% of doctors were prepared to give distressed patients as much time as they needed. Predictors of clinicians' willingness to use more advanced screening methods were length of follow-up appointments and time clinicians were prepared to spend detecting distress. We suggest that future field studies of screening tools should also measure the issue of acceptability.
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Keywords: screening; detection; anxiety; distress; depression; Distress Thermometer; cancer and oncology

Introduction

According to the UK National Screening Committee screening is a clinical action 'by which members of a defined population, who do not necessarily perceive they are at risk of, or are already affected by a disease or its complications, are asked a question or offered a test, to identify those individuals who are more likely to be helped than harmed by further tests or treatment to reduce the risk of a disease or its complications' [1]. In the context of cancer care in the UK, the Guidelines for Supportive & Palliative Care from the National Institute for Health and Clinical Excellence (NICE) endorse that 'Professionals operating at this level should be able to screen for psychological distress at key points in the patient pathway (Recommendation 5.2)' [2]. This document does not mention a specific tool but in the 2004 NICE guidance on 'Management of depression in primary and secondary care' two simple questions analogous to those used in the Patient Health Questionnaire (PHQ2) are recommended with grade B evidence [3]. These are 'During the last month, have you often been bothered by feeling down, depressed or hopeless?' and 'During the last month, have you often been bothered by having little interest or pleasure in doing things?'

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Comment: "Ideal" method of eliciting symptoms of distress/depression according to clinician

6. How Valid Are the Tools

14 items				
	Hospital Anxiety and Depression Scale	HADS	Distress	Yes
13 items				
	Beck Depression Inventory-Short Form*	BDI-SF	Depression	Yes
	Psychological Distress Inventory	PDI	Distress	Yes
12 items				
	General Health Questionnaire - 12*	GHQ-12	Distress	Yes
11 items				
	Bech-Rafaelsen Melancholia Scale	MES	Depression	No
10 items				
	Edinburgh Postnatal Depression Scale	EPDS (original)	Depression	Yes
	Montgomery Asberg Depression Rating Scale (MADRAS)	MADRS (original)	Depression	No
	Zung Self-Rating Depression Scale, Short Form*	SDS-10	Depression	No
	Center for Epidemiologic Studies Depression Scale - 10*	CES-D-10	Depression	No
	Depression Scale	DEPS-10	Depression	No
9 items				
	Patient Health Questionnaire - 9	PHQ9	Depression	No
	Hornheide Short Form*	HSF	Depression	Yes
8 items				
	Medical Outcomes Scale - 8	MOS-8	Depression	
	Even Briefer Assessment Scale for Depression*	EBAS-Dep	Depression	No
	Edinburgh Postnatal Depression Scale - 8*	EPDS-8	Depression	No
	Patient Health Questionnaire - 8*	PHQ-8	Depression	No
7 items				
	Hospital Anxiety and Depression scale - depression subscale	HADS-D	Depression	Yes
	Hospital Anxiety and Depression scale - anxiety subscale	HADS-A	Anxiety	Yes
	Hamilton Depression Scale - 7*	HAM-D-7	Depression	No
	Beck Depression Inventory - 7*	BDI-7	Depression	No
	Duke Anxiety-Depression Scale	DADS-7	Depression	No
	Edinburgh Postnatal Depression Scale - depression items	EPDS-7	Depression	No
	Hornheide Screening Instrument*	HSI	Depression	Yes
6 items				
	Brief Edinburgh Postnatal Depression Scale*	BEDS	Depression	Yes
	Hamilton Depression Scale - 6*	HAM-D-6	Depression	No
	Center for Epidemiologic Studies Depression Scale - 6*	CES-D-6	Depression	No

5 Items				
	Edinburgh Postnatal Depression Scale - 5*	EPDS-5	Depression	No
	WHO-5	WHO-5	Multiple domain	No
	Geriatric Depression Scale - 5*	GDS-5	Depression	No
	Emotion Thermometers	--	Multiple domain	Yes
4 Items				
	Geriatric Depression Scale - 4*	GDS-4	Depression	No
	Brief Case Find for Depression	BCFD	Depression	Yes
3 Items				
	Patient Health Questionnaire 2 + help question	PHQ2 + help question	Depression	Yes
	Edinburgh Postnatal Depression Scale – anxiety items	EPDS-3	Depression	No
2 Items				
	Patient Health Questionnaire - 2	PHQ2	Depression	Yes
	Any two verbal questions	2QQ	Depression	Yes
	Distress Thermometer and Impact Thermometer (combined)	DT/IT	Distress	Yes
	Beck Depression Inventory - 2*	BDI-2	Depression	No
1 Item				
	Patient Health Questionnaire Q1	PHQ Q1	Depression	Yes
	Patient Health Questionnaire Q2	PHQ Q2	Depression	Yes
	Any Single Verbal Item	--	Depression	Yes
	Geriatric Depression Scale - 1*	GDS1	Depression	
	Distress Thermometer	DT	Distress	Yes
	Impact Thermometer	IT	Distress	Yes
	Help Thermometer	HT	Need for Help	Yes

Validity of Methods to Evaluate Depression

Unassisted Clinician

- Untrained
- Trained

Ultra-Short (<5)

Conventional Scales

- Short (5-10)
- Long (10+)

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http://www.bjcancer.com

Psychiatric morbidity and its recognition by doctors in patients with cancer

L Fallowfield, D Ratcliffe, V Jenkins and J Saul

CRC Psychosocial Oncology Group, School of Biological Sciences, University of Sussex, Falmer BN1 9QG

Summary Psychiatric morbidity in patients with cancer is high and without appropriate treatment unremitting. We assessed the ability of 143 doctors to establish the psychological status of 2297 patients during outpatient consultations in 34 cancer centres and hospitals in the UK. Prior to seeing the doctor, consenting patients completed a short self-report questionnaire (GHQ12), designed for the psychological screening of large populations. At the end of the consultation, doctors completed visual analogue scales rating patients' distress. 837/2297 (36.4%) patients had GHQ scores suggestive of psychiatric morbidity. The doctors' sensitivity (true positive rate) was 28.61% (SD 25.28), specificity (true negative rate) 84.79% (SD 17.44). The misclassification rate was 34.7% (SD 13.79) meaning that for 797 patients the wrong assessment was probably made. These data show that much of the probable psychiatric morbidity experienced by patients with cancer goes unrecognized and therefore untreated. Doctors need communication skills training to elicit problems during consultations. Appropriate referrals to psychological services are needed when patients requiring help are identified and ought to be an integral part of cancer care.
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Keywords: detection of psychiatric morbidity; communication

The stress associated with the diagnosis and treatment of cancer can cause significant psychiatric morbidity. Prevalence estimates vary depending on the assessment measures employed and the diagnostic criteria applied but reports for the past 3 decades (Maguire et al, 1978; Derogatis et al, 1983; Massie and Holland, 1990; Hopwood and Stephens, 2000) suggest that 25–50% of patients have psychological problems, with at least 25% meeting the criteria for either a major depressive disorder or adjustment disorder with depressed mood (Sellick and Crooks, 1999). These figures seem fairly consistent whether self-report questionnaires or standardized interviews are used and apply across all tumour sites and stages of disease, although there are some reports that the risk of major depression increases with recurrence (Cella et al, 1990; Hall et al, 1996) advanced disease, (Breitbart, 1995) and with increasing disability and pain (Passik et al, 1998). Evidence that any other patient or disease characteristics are associated with an increased likelihood of psychological morbidity is indeterminate.

Many of the psychological problems suffered by patients could be prevented or at least ameliorated if the communication skills of clinicians were better. In one study of women with breast cancer, those who were satisfied with the way in which the surgeon discussed their diagnosis and treatment options evidenced less psychiatric morbidity during the first year post treatment and at 2 and 3 year follow up (Fallowfield et al, 1990; Fallowfield and Hall, 1994). If psychological problems are recognized by health-care professionals then patients can be referred on for appropriate and effective interventions (Fallowfield, 1995). Given the extent of psychiatric morbidity and the proven efficacy of many different types of intervention for adult cancer patients (Meyer and Mark, 1995; Sheard and Maguire, 1999) this should form an important part of effective clinical management. Unfortunately several studies have shown that oncologists are not especially skilled at either discussing psychological problems in general, or at recognizing anxiety or depression (Hardman et al, 1989; Ford et al, 1994; Newell et al, 1998; Passik et al, 1998). Most published data suggest that doctors' ability to accurately detect psychological morbidity in patients is often little better than that due to chance.

Although the recognition of psychological morbidity is often hampered by the unwillingness of patients to disclose emotional concerns, the doctors are frequently reluctant to probe these areas satisfactorily (Hardman et al, 1989; Hopwood et al, 1991; Ford et al, 1996). For example in one study in which oncologists were tape-recorded giving patients bad news about their diagnoses and prognoses, the levels of psychological probing were low. When patients did volunteer psychological concerns, these were not pursued as oncologists kept the dialogue focussed on a rigid biomedical agenda (Ford et al, 1996). Far too often psychological symptoms in patients are discounted as a normal consequence of having cancer (Fallowfield, 1988, 1990; Newell et al, 1998).

Even if doctors possess appropriate communication skills they often fail to utilize them given the stressful and difficult clinical environments in which many work. There are too few doctors seeing too many patients in UK cancer clinics with the added pressures of throughput and cost containment burdening them further. Furthermore surveys in the UK and US have shown that psychiatric morbidity and emotional burnout are almost as common in

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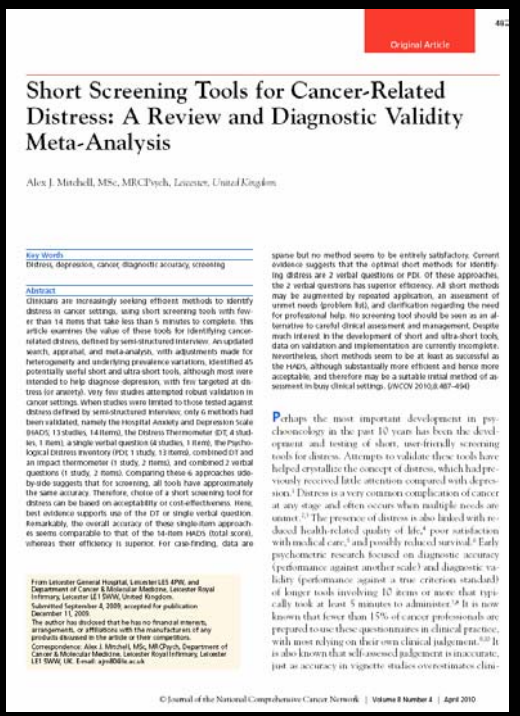
Lesley Fallowfield designed the study. All authors contributed to the collection and analysis of data and the writing of the report.



Original Article

Short Screening Tools for Cancer-Related Distress: A Review and Diagnostic Validity Meta-Analysis

Alex J. Mitchell, MSc, MRCPsych, *Leicester, United Kingdom*

Key Words
Distress, depression, cancer, diagnostic accuracy, screening

Abstract
Clinicians are increasingly seeking efficient methods to identify distress in cancer settings, using short screening tools with fewer than 14 items that take less than 5 minutes to complete. This article examines the value of these tools for identifying cancer-related distress, defined by semi-structured interview. An updated search, appraisal, and meta-analysis, with adjustments made for heterogeneity and underlying prevalence variations, identified 45 potentially useful short and ultra-short tools, although most were intended to help diagnose depression, with few targeted at distress (or anxiety). Very few studies attempted robust validation in cancer settings. When studies were limited to those tested against distress defined by semi-structured interview, only 6 methods had been validated, namely the Hospital Anxiety and Depression Scale (HADS; 13 studies, 14 items), the Distress Thermometer (DT; 4 studies, 1 item), a single verbal question (4 studies, 1 item), the Psychological Distress Inventory (PDI; 1 study, 13 items), combined DT and an impact thermometer (1 study, 2 items), and combined 2 verbal questions (1 study, 2 items). Comparing these 6 approaches side-by-side suggests that for screening, all tools have approximately the same accuracy. Therefore, choice of a short screening tool for distress can be based on acceptability or cost-effectiveness. Here, best evidence supports use of the DT or single verbal question. Remarkably, the overall accuracy of these single-item approaches seems comparable to that of the 14-item HADS (total score), whereas their efficiency is superior. For case-finding, data are sparse but no method seems to be entirely satisfactory. Current evidence suggests that the optimal short methods for identifying distress are 2 verbal questions or PDI. Of these approaches, the 2 verbal questions has superior efficiency. All short methods may be augmented by repeated application, an assessment of unmet needs (problem list), and clarification regarding the need for professional help. No screening tool should be seen as an alternative to careful clinical assessment and management. Despite much interest in the development of short and ultra-short tools, data on validation and implementation are currently incomplete. Nevertheless, short methods seem to be at least as successful as the HADS, although substantially more efficient and hence more acceptable, and therefore may be a suitable initial method of assessment in busy clinical settings. (JNCCN 2010;8:487–494)

Perhaps the most important development in psychooncology in the past 10 years has been the development and testing of short, user-friendly screening tools for distress. Attempts to validate these tools have helped crystallize the concept of distress, which had previously received little attention compared with depression.[1] Distress is a very common complication of cancer at any stage and often occurs when multiple needs are unmet.[2,3] The presence of distress is also linked with reduced health-related quality of life,[4] poor satisfaction with medical care,[5] and possibly reduced survival.[6] Early psychometric research focused on diagnostic accuracy (performance against another scale) and diagnostic validity (performance against a true criterion standard) of longer tools involving 10 items or more that typically took at least 5 minutes to administer.[7,8] It is now known that fewer than 15% of cancer professionals are prepared to use these questionnaires in clinical practice, with most relying on their own clinical judgment.[9,10] It is also known that self-assessed judgement is inaccurate, just as accuracy in vignette studies overestimates clini-

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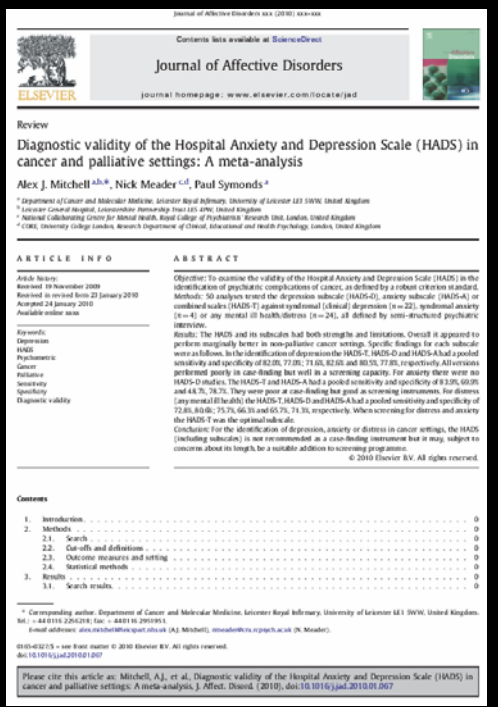
Correspondence: Alex J. Mitchell, MSc, MRCPsych, Department of Cancer & Molecular Medicine, Leicester Royal Infirmary, Leicester LE1 5WW, UK. E-mail: ajm80@le.ac.uk



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Review

Diagnostic validity of the Hospital Anxiety and Depression Scale (HADS) in cancer and palliative settings: A meta-analysis

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ABSTRACT

Objective: To examine the validity of the Hospital Anxiety and Depression Scale (HADS) in the identification of psychiatric complications of cancer, as defined by a robust criterion standard.
Methods: 50 analyses tested the depression subscale (HADS-D), anxiety subscale (HADS-A) or combined scales (HADS-T) against syndromal (clinical) depression (n = 22), syndromal anxiety (n = 4) or any mental ill health/distress (n = 24), all defined by semi-structured psychiatric interview.
Results: The HADS and its subscales had both strengths and limitations. Overall it appeared to perform marginally better in non-palliative cancer settings. Specific findings for each subscale were as follows. In the identification of depression the HADS-T, HADS-D and HADS-A had a pooled sensitivity and specificity of 82.0%, 77.0%; 71.0%, 82.0% and 80.5%, 77.0%, respectively. All versions performed poorly in case-finding but well in a screening capacity. For anxiety there were no HADS-D studies. The HADS-T and HADS-A had a pooled sensitivity and specificity of 83.3%, 69.9% and 44.7%, 78.7%. They were poor at case-finding but good as screening instruments. For distress (any mental ill health) the HADS-T, HADS-D and HADS-A had a pooled sensitivity and specificity of 72.8%, 80.0%; 75.7%, 66.3% and 65.7%, 71.3%, respectively. When screening for distress and anxiety the HADS-T was the optimal subscale.
Conclusion: For the identification of depression, anxiety or distress in cancer settings, the HADS (including subscales) is not recommended as a case-finding instrument but it may, subject to concerns about its length, be a suitable addition to screening programmes.
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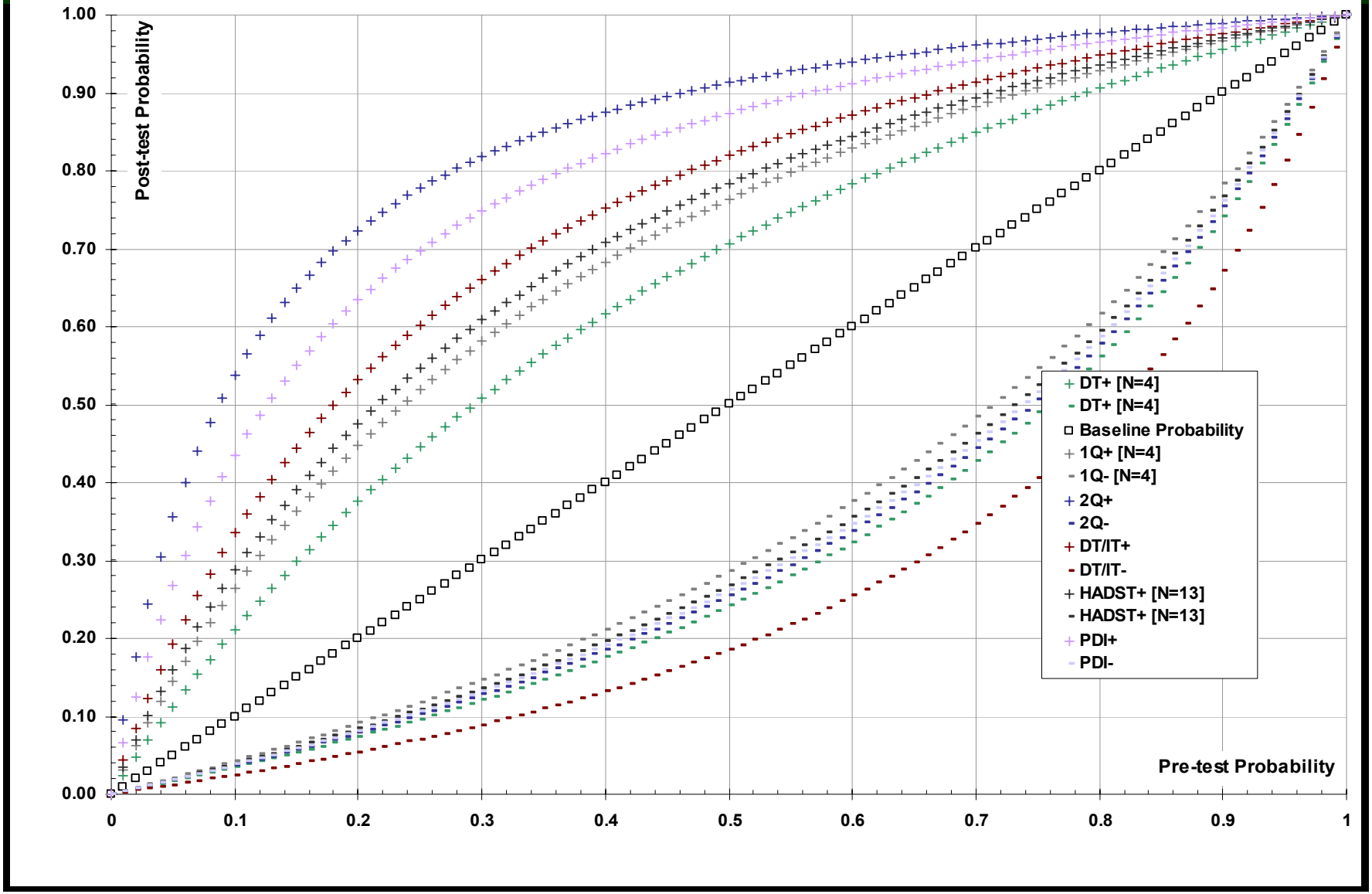
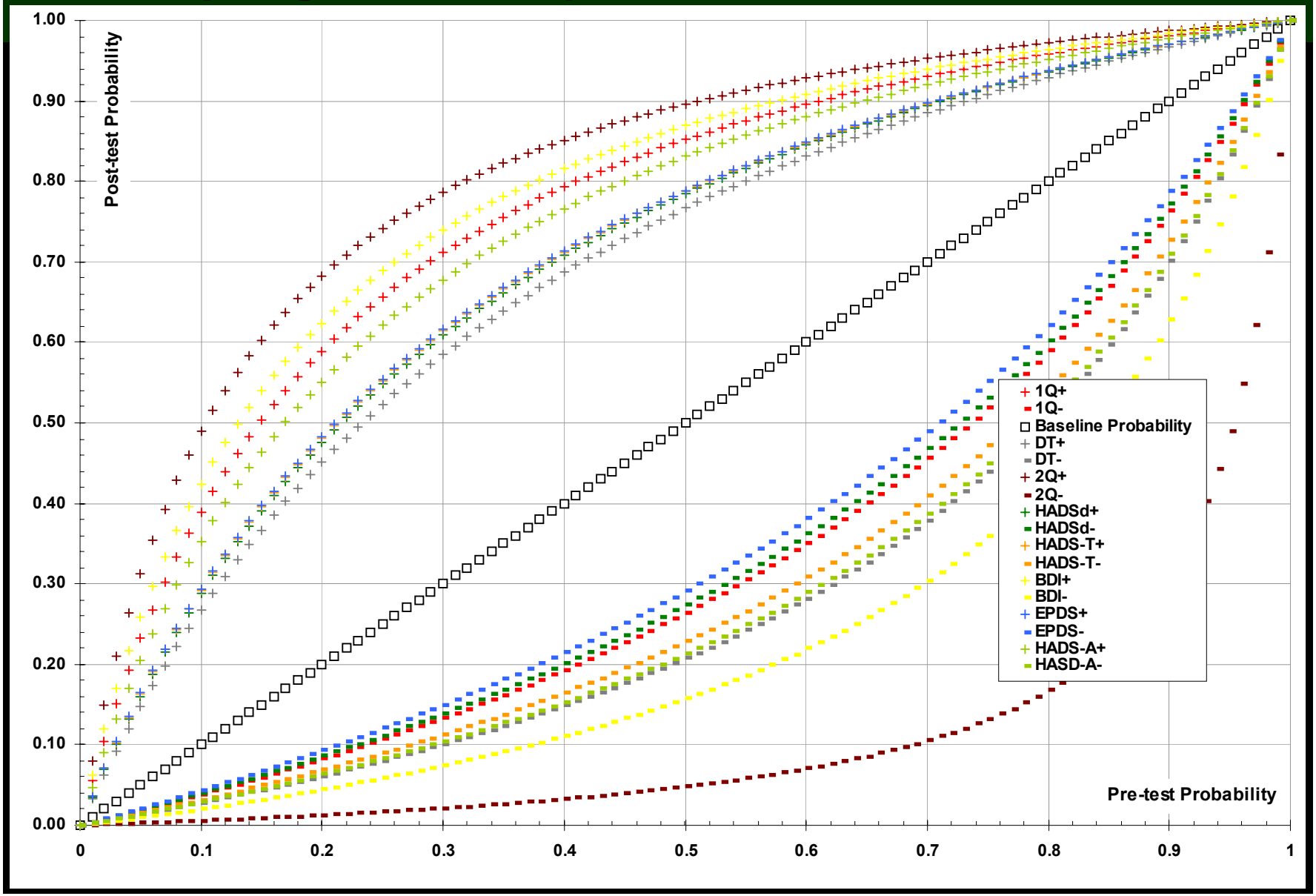
Validity Against Distress



Validity Against Depression



7. Implementation

What can enhance detection?

LNR Psychological & Emotional Quick Screen v5eol (Feb09)

INSTRUCTIONS

This Quick Screen is simple method of identifying patient distress. Once you have received training, please help the patient to complete this page (file this in the notes) and then fill in the feedback form attached.

This is not intended to replace clinical assessment, but is a guide to assisting/managing psychological/psychiatric distress related to cancer. The NICE guidelines for supportive and palliative care in cancer recommend screening patients at: diagnosis, treatment episodes, treatment end and at time of recurrence, as a minimum.

1. PATIENT DETAILS

Stage Diagnosis In-Treatment Remission Recurrence/Late Other

Addressograph

DOB _____ M / F

UHL KGH NGH Other_____

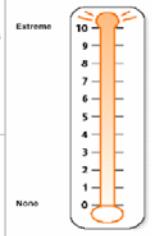
2. DISTRESS THERMOMETER

Instructions

Please ask the patient to circle the number (0-10) that best describes how much distress in general they have been experiencing over the past week

Does this score represent a significant change?

☐ Worse ☐ No change ☐ Better



3. CONCERNS CHECKLIST

Instructions

Please ask the patient to tick any of the following that has been a cause of distress over the past week, including today. Also ask for the most pressing concerns.

Practical Concerns	Personal Concerns	Emotional Concerns	Physical Concerns
☐ Family Issues	☐ Appearance	☐ Anger / irritability	☐ Breathing
☐ Issues with Health Staff	☐ Self-care	☐ Nervousness / anxiety	☐ Eating / weight
☐ Finances / Bills	☐ Loss of Independence	☐ Depression / hopelessness	☐ Toileting
☐ Lack of Information	☐ Loss or Role	☐ Worry about cancer	☐ Fatigue/Exhaustion
☐ Problems with medication	☐ Sexual/Intimacy Issues	☐ Odd experiences	☐ Sleep problems
	☐ Spiritual issues	☐ Memory / concentration	☐ Nausea
☐ Others		☐ Self-esteem / confidence	☐ Headaches
_____			☐ Pain
_____			
(1st) Most Pressing _____	(2nd) Most Pressing _____	(3rd) Most Pressing _____	

4. ACTION TAKEN FOR EACH CONCERN

☐ No action	☐ No action	☐ No action
☐ Declined Help	☐ Declined Help	☐ Declined Help
☐ Help Given	☐ Help Given	☐ Help Given
☐ Referral	☐ Referral	☐ Referral
☐ Other (state)	☐ Other (state)	☐ Other (state)

Clinician Name _____ Designation _____ Specialty _____ Date_____

Outcome/Referred to (describe) _____ Please file with additional information in notes & return the feedback form

UHL Chemotherapy Suite Emotional Quick Screen v5Mar09

1. PATIENT DETAILS

Stage Diagnosis In-Treatment Remission Recurrence/Late Other

Addressograph

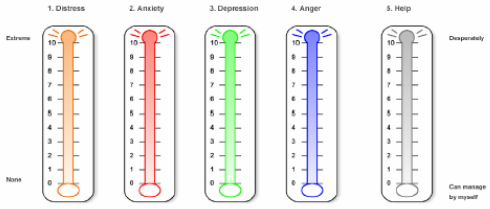
DOB _____ M / F

Ward/Dept_____ Other_____

2. EMOTION THERMOMETERS

Instructions

In the first four columns, please mark the number (0-10) that best describes how much emotional upset you have been experiencing in the past week including today. In the final column please indicate how much you need help for these concerns.



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Please ask the patient to tick any of the following that has been a cause of distress over the past week, including today. Also ask for the most pressing concerns.

Practical Concerns	Personal Concerns	Emotional Concerns	Physical Concerns
☐ Family Issues	☐ Appearance	☐ Anger / irritability	☐ Breathing
☐ Issues with Health Staff	☐ Self-care	☐ Nervousness / anxiety	☐ Eating / weight
☐ Finances / Bills	☐ Loss of Independence	☐ Depression / hopelessness	☐ Toileting
☐ Lack of Information	☐ Loss or Role	☐ Worry about cancer	☐ Fatigue/Exhaustion
☐ Problems with medication	☐ Sexual/Intimacy Issues	☐ Odd experiences	☐ Sleep problems
	☐ Spiritual issues	☐ Memory / concentration	☐ Nausea
☐ Others		☐ Self-esteem / confidence	☐ Headaches
_____			☐ Pain
_____			
(1st) Most Pressing _____	(2nd) Most Pressing _____	(3rd) Most Pressing _____	

4. ACTION TAKEN FOR EACH CONCERN

☐ No action	☐ No action	☐ No action
☐ Declined Help	☐ Declined Help	☐ Declined Help
☐ Help Given	☐ Help Given	☐ Help Given
☐ Referral	☐ Referral	☐ Referral
☐ Other (state)	☐ Other (state)	☐ Other (state)

Clinician Name _____ Designation _____ Specialty _____ Date_____

Outcome/Referred to (describe) _____ Please file with additional information in notes & return the feedback form

UHL Chemotherapy Suite Quick Screen Feedback Form v5Mar09

INSTRUCTIONS

We would be grateful if you can fill in this form after ***each application (for each patient)*** of the Quick Screen, so that we can evaluate its success. Please return a copy for all patients not just those with high scores. This form can be completed by any relevant clinical nurse specialist. Please fax to the address below (for queries ring 0116 2256218).

PATIENT RESULTS

Where is the patient on the patient pathway? Diagnosis ☐ In-Treatment ☐ Remission ☐ Recurrence/Late ☐ Other ☐

How many times have you seen this person ? First time ☐ Second time ☐ Third time ☐ Four or Five ☐ Many ☐

What was the score on the Emotion Thermometers Distress ☐ Anxiety ☐ Anger ☐ Anger ☐ Help ☐

What were the three most pressing concerns? (1)_____ (2)_____ (3)_____ OR None

What was your clinical impression **BEFORE** screening? (tick any that apply)

Distressed ☐ Depressed ☐ Anxious ☐ Angry ☐ Unsure ☐ Well ☐ Other _____

What was your clinical impression **AFTER** screening?

Distressed ☐ Depressed ☐ Anxious ☐ Angry ☐ Unsure ☐ Well ☐ Other _____

ACTION TAKEN FOR EACH CONERN

(1)	(2)	(3)	(4) N/A
☐ No action	☐ No action	☐ No action	☐ There were no concerns
☐ Declined Help	☐ Declined Help	☐ Declined Help	
☐ Help Given	☐ Help Given	☐ Help Given	
☐ Referral	☐ Referral	☐ Referral	
☐ Other (state)	☐ Other (state)	☐ Other (state)	

YOUR FEEDBACK

Training Have you received training for the detection of emotional problems?
Yes No Don't Know Did not receive training

Practicality Is the enclosed screening instrument practical for your setting?
Yes No (too long) No (other reason)_____

Discussion Did the instrument help you talk about psychosocial issues with the patient?
Yes No Don't Know

Detection Did the instrument help you detect psychological problems such as depression / anxiety
Yes No Don't Know

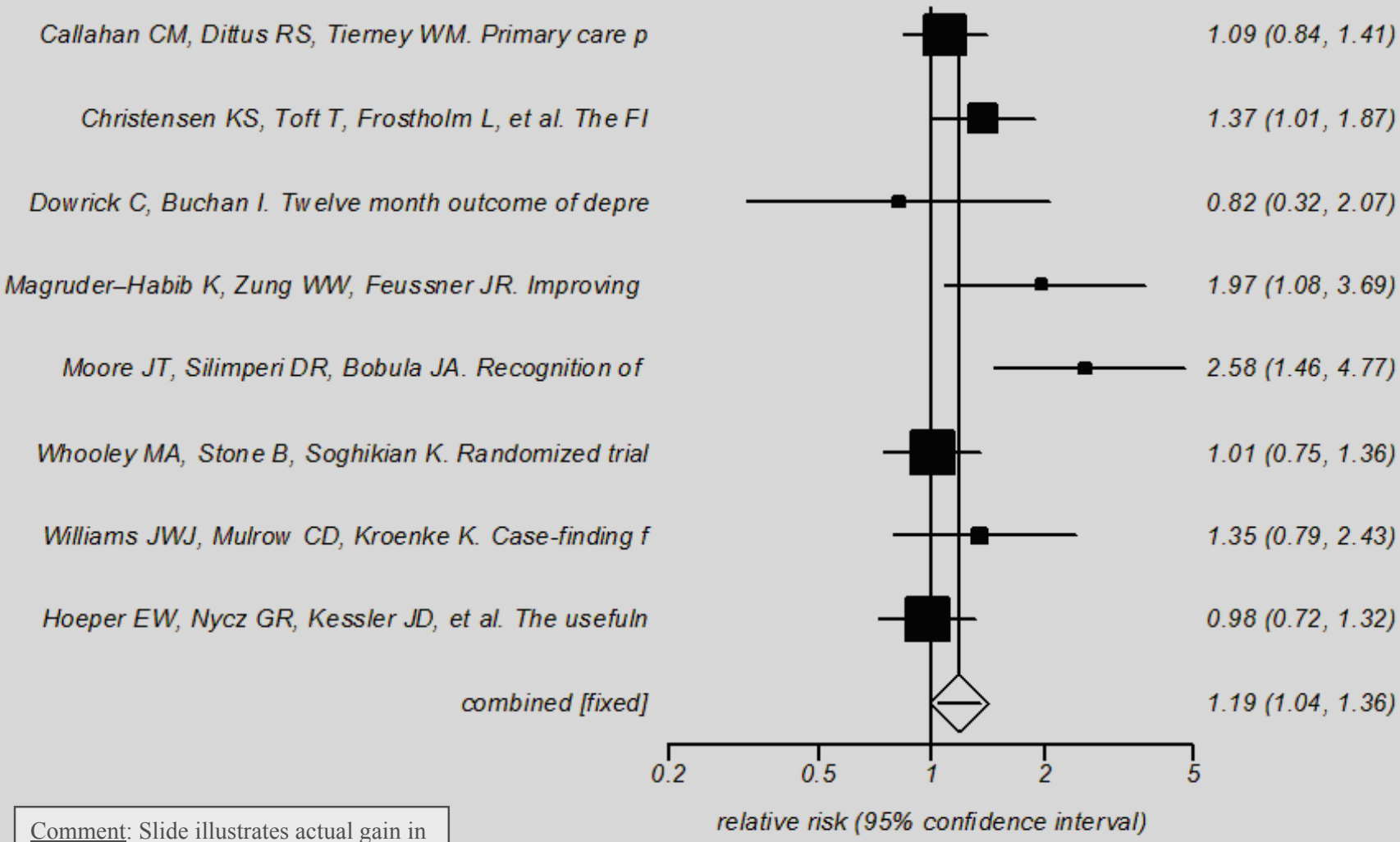
Confidence How would you rate your usual confidence in detecting emotional problems
High Above Av. Average Below Av. Low

COMMENTS Do you have any specific comments or suggestions for us (please write in the space below)?

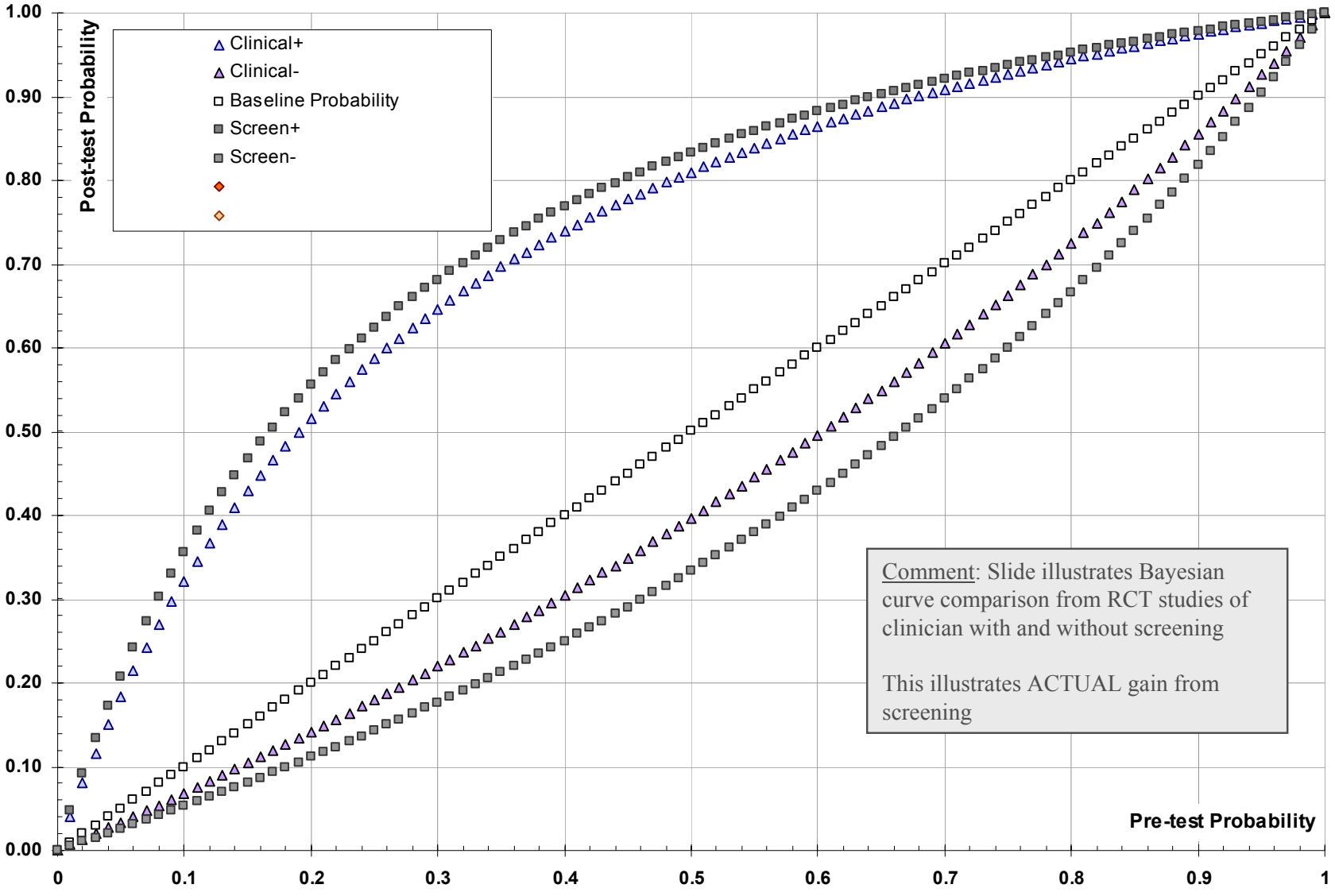
Clinician Name _____ Specialty_____ Date_____

Designation _____ Return a FAXED copy to Alex Mitchell, Liaison Psychiatry, LGH **0116 2951951**

Relative risk meta-analysis plot (fixed effects)



Comment: Slide illustrates actual gain in meta-analysis of screening implementation in primary care


Post-test Probability
Clinical+
Clinical-
Baseline Probability
Screen+
Screen-
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
Pre-test Probability
Comment: Slide illustrates Bayesian curve comparison from RCT studies of clinician with and without screening
This illustrates ACTUAL gain from screening

Leicester: DT/ET Implementation

T177 t680

Approached - 800 patients

Willing - 700

Assessed - 500

Returned - 402

Pre-Post Screen - Distress

	Before	After
Sensitivity of	**49.7%**	**55.8% =>+5%**
Specificity of	**79.3%**	**79.8% =>+1%**
PPV was	**67.3%**	**70.9% =>+4%**
NPV was	**64.1%**	**67.2% =>+3%**

There was a non-significant trend for improve detection sensitivity (Chi^2 = 1.12 P = 0.29).

Qualitative Aspects

DISTRESS

43% of CNS reported the tool helped them talk with the patient about psychosocial issues esp in those with distress

28% said it helped inform their clinical judgement

DEPRESSION

38% of occasions reported useful in improving communication.

28.6% useful for informing clinical judgement

Next Step

269 Nurse-patient interactions

Helped 65 (24%)

Not Helped 204 (76%)

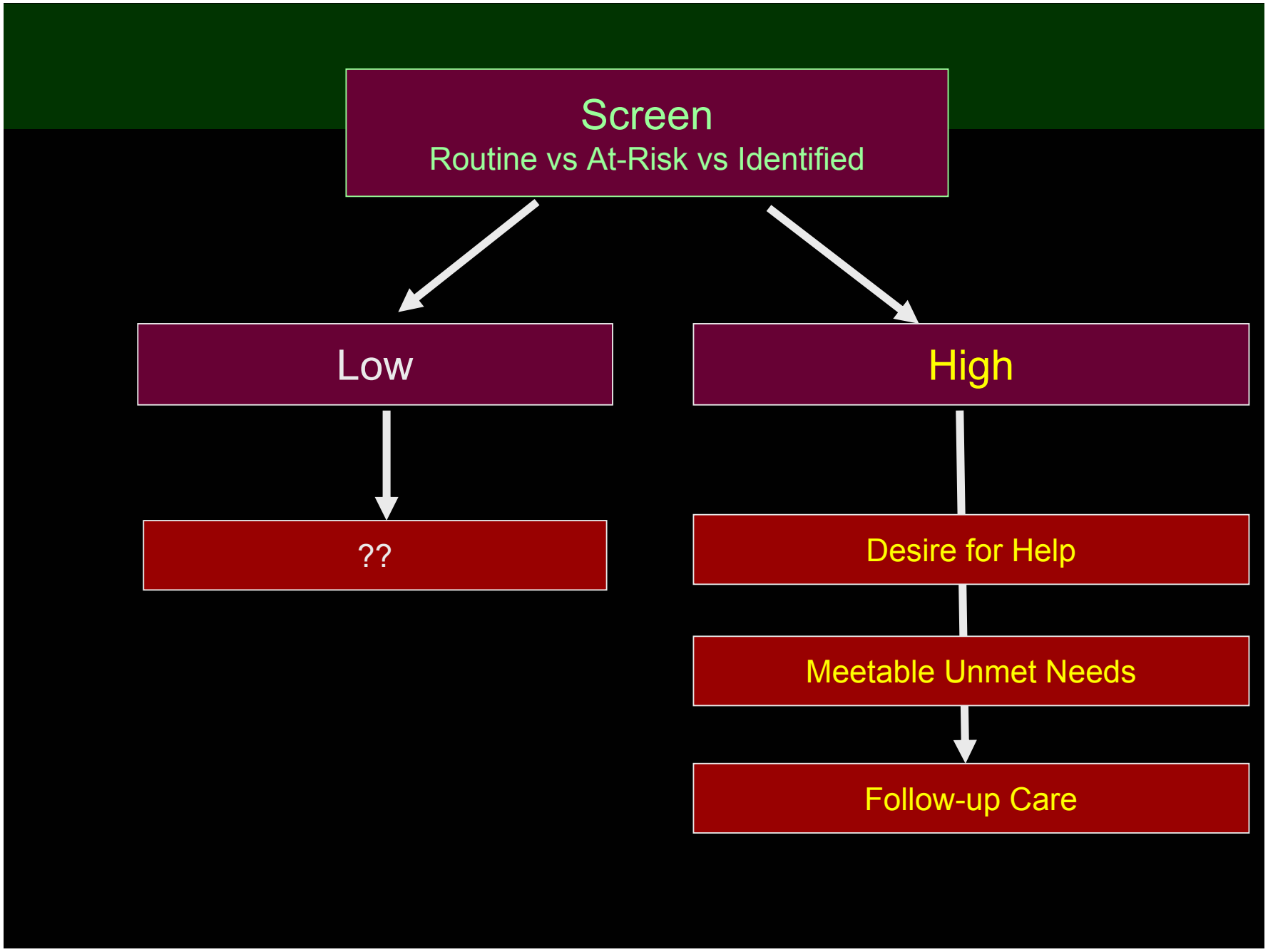
Referred 23 (8.6%)

Declined Helped 20 (7.4%)

No Unmet Needs 34 (12.6%)

Unmet Needs 150 (55.8%)

p179


Screen
Routine vs At-Risk vs Identified
Low
High
??
Desire for Help
Meetable Unmet Needs
Follow-up Care

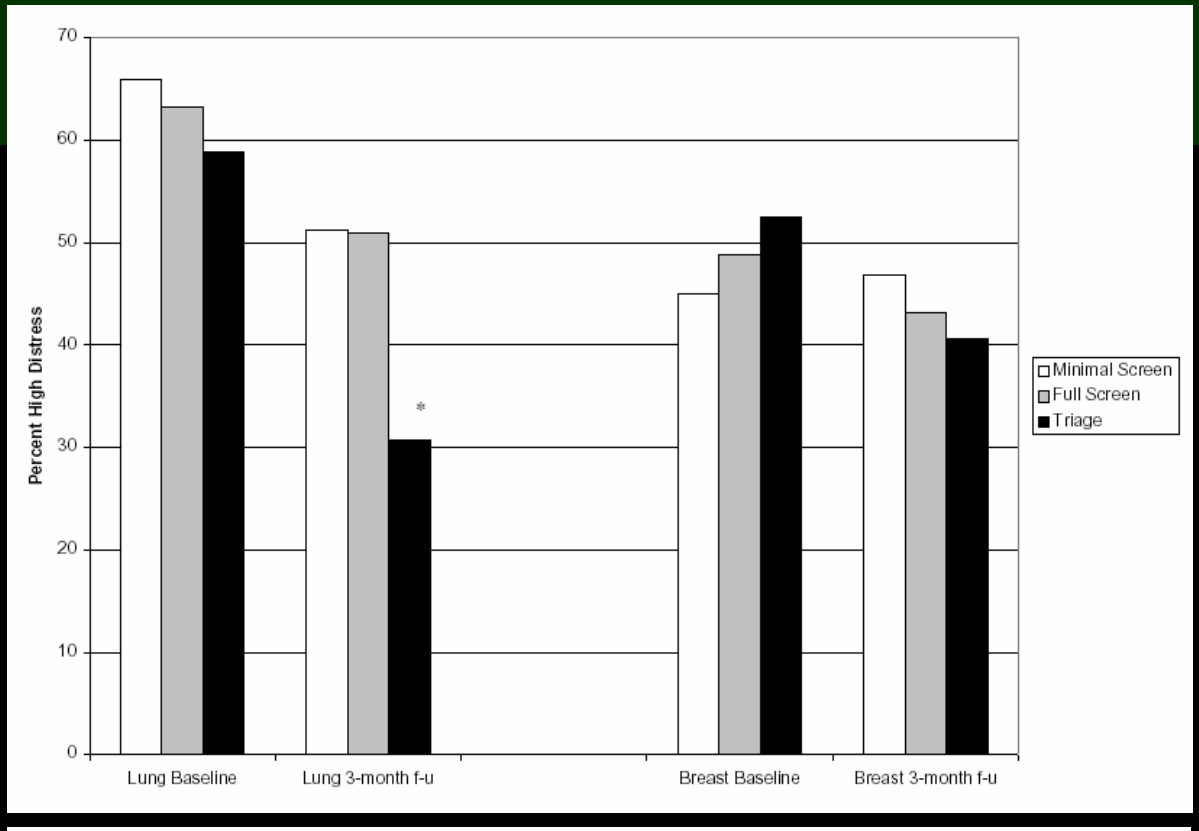
RCT using DT

Screening for Distress in lung and breast cancer outpatients: A randomized controlled trial Linda Carlson Tom Baker Cancer Centre, University of Calgary

1) Minimal Screening: the Distress Thermometer (DT) [n=365]

2) Full Screening: DT, Problem Checklist, Psychological Screen for Cancer (PSSCAN) [n=391] a personalized report

3) Triage: Full screening plus optional personalized phone triage [378]



		Full Sample			Lung			Breast		
		Minimal Screen	Full Screen	Triage	Minimal Screen	Full Screen	Triage	Minimal Screen	Full Screen	Triage
DT Baseline	N	365	391	378	176	174	199	189	217	179
	Mean	4.33	4.33	4.26	5.18	4.83	4.56	3.53	3.93	3.93
	SD	3.05	3.01	2.95	3.11	3.03	3.07	2.77	2.94	2.77
DT 3-month	N	273	291	292	117	108	137	156	183	155
	Mean	3.72*	3.33	3.16*	3.61	3.45	2.91	3.81**	3.25**	3.38**
	SD	3.04	2.92	2.98	3.09	2.97	2.90	3.02	2.89	3.04
Over DT cutoff score of 4 baseline	N	201	216	211	116	110	117	85	106	94
	Percent	55.1	55.2	55.8	65.9	63.2	58.8	45.0	48.8	52.5
Over DT cutoff score of 4 3-month	N	133	134	105	60	55	42	73	79	63
	Percent	48.7	46.0	36.0***	51.3	50.9	30.7†	46.8	43.2	40.6

Advanced Aspects

Algorithms

Structured interviews

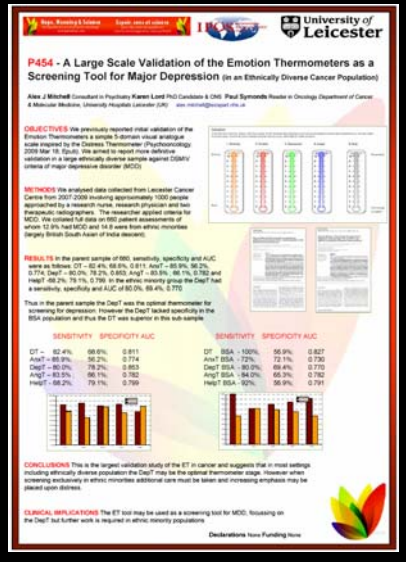
Computerized testing

Item-banking

Screening in subgroups

P643 - A Definitive Meta-analysis to Ascertain the Optimal Screening Method for Depression in Cancer and Palliative Care. Part II - Algorithmic Test Combinations

p643



P454 - A Large Scale Validation of the Emotion Thermometers as a Screening Tool for Major Depression (in an Ethnically Diverse Cancer Population)

p454

Credits & Acknowledgments

Elena Baker-Glenn	**University of Nottingham**
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For more information **www.psycho-oncology.info**