OBJECTIVES
There has been much research on the value of the DT in screening for distress or depression in cancer settings. A meta-analysis suggested that the DT may lack specificity. We recently developed the Emotion Thermometer (ET) which builds on the success of the DT including distress, anxiety, depression and anger domains. Here we analysed the depression thermometer (DepT) and the DT against DSMIV Depression.

METHODS We analysed data collected from Leicester Cancer Centre from 2008-2009 involving approximately 1000 people approached by a research nurse and two therapeutic radiographers. Of those approached we collected data on 738 presentations, that is people seen up to three times over 9 months during treatment for cancer. Of these 48 (10.7%) had major depression and 121 (27.1%) had any depression (defined as major or minor combined).

RESULTS Initial logistic regression suggested that the DepT was most closely related to the diagnosis of any depression as well as major depression.

<table>
<thead>
<tr>
<th>Logistic Regression - Any Depression</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>PPV</th>
<th>NPV</th>
<th>AUC</th>
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<tbody>
<tr>
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<tr>
<td>Distress Thermometer b1 = -0.579</td>
<td>0.578 (95%CI 0.48 to 0.67)</td>
<td>0.801 (95%CI 0.75 to 0.84)</td>
<td>0.52</td>
<td>0.84</td>
<td>0.734 (95%CI 0.68 to 0.79)</td>
</tr>
<tr>
<td>Anxiety Thermometer b2 = -0.171</td>
<td>0.591 (95%CI 0.48 to 0.70)</td>
<td>0.758 (95%CI 0.69 to 0.82)</td>
<td>0.55</td>
<td>0.87</td>
<td>0.739 (95%CI 0.68 to 0.79)</td>
</tr>
<tr>
<td>Depression Thermometer b3 = 0.234</td>
<td>0.644 (95%CI 0.55 to 0.73)</td>
<td>0.775 (95%CI 0.72 to 0.82)</td>
<td>0.61</td>
<td>0.84</td>
<td>0.739 (95%CI 0.68 to 0.79)</td>
</tr>
<tr>
<td>Anger Thermometer b4 = 0.278</td>
<td>0.792 (95%CI 0.65 to 0.89)</td>
<td>0.849 (95%CI 0.81 to 0.88)</td>
<td>0.38</td>
<td>0.97</td>
<td>0.853 (95%CI 0.79 to 0.91)</td>
</tr>
<tr>
<td>Help Thermometer b5 = 0.108</td>
<td>0.641 (95%CI 0.53 to 0.75)</td>
<td>0.772 (95%CI 0.72 to 0.82)</td>
<td>0.52</td>
<td>0.84</td>
<td>0.739 (95%CI 0.68 to 0.79)</td>
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<table>
<thead>
<tr>
<th>Logistic Regression - Major Depression</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>PPV</th>
<th>NPV</th>
<th>AUC</th>
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<tr>
<td>Distress Thermometer b1 = 0.228</td>
<td>0.875 (95%CI 0.75 to 0.95)</td>
<td>0.701 (95%CI 0.65 to 0.75)</td>
<td>0.26</td>
<td>0.98</td>
<td>0.839 (95%CI 0.78 to 0.89)</td>
</tr>
<tr>
<td>Anxiety Thermometer b2 = -0.082</td>
<td>0.875 (95%CI 0.75 to 0.95)</td>
<td>0.775 (95%CI 0.72 to 0.82)</td>
<td>0.58</td>
<td>0.84</td>
<td>0.739 (95%CI 0.68 to 0.79)</td>
</tr>
<tr>
<td>Depression Thermometer b3 = 0.275</td>
<td>0.792 (95%CI 0.65 to 0.89)</td>
<td>0.849 (95%CI 0.81 to 0.88)</td>
<td>0.38</td>
<td>0.97</td>
<td>0.853 (95%CI 0.79 to 0.91)</td>
</tr>
<tr>
<td>Anger Thermometer b4 = 0.009</td>
<td>0.792 (95%CI 0.65 to 0.89)</td>
<td>0.849 (95%CI 0.81 to 0.88)</td>
<td>0.38</td>
<td>0.97</td>
<td>0.853 (95%CI 0.79 to 0.91)</td>
</tr>
<tr>
<td>Help Thermometer b5 = 0.116</td>
<td>0.792 (95%CI 0.65 to 0.89)</td>
<td>0.849 (95%CI 0.81 to 0.88)</td>
<td>0.38</td>
<td>0.97</td>
<td>0.853 (95%CI 0.79 to 0.91)</td>
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CONCLUSIONS Diagnostic validity testing suggested a slightly superior AUC for DepT (vs DT) against major depression but equivalent accuracy against any depression. Sensitivity of the DepT was significantly higher than the DT in the diagnosis of MDD. Thus the DepT outperforms the DT against DSMIV major depression with better sensitivity, although the DT performs comparably against "any depression".

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