Which self-report anxiety scale is optimal for measuring cancer related anxiety? A comparison of GAD7, GAD-DSMIV, and ET Anxiety Thermometer vs MINI semi-structured interview

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BACKGROUND Patients with cancer have an elevated rate of anxiety early after cancer and anxiety levels remain higher than in the general population for 2 to 5 years post diagnosis. However few studies have examined which anxiety scales are optimal in clinical practice. In this primary study we compared 3 self-report methods.

METHODS We conducted a diagnostic validation study using the semi-structured MINI neuropsychiatric interview as the gold standard. Four researchers collected data from the Leicester Cancer Centre between 2013 and 2014. We examined 46 patients following their breast cancer diagnosis. On the MINI the prevalence of Generalised Anxiety disorder (GAD) was 19.6%.

RESULTS The GAD-DSMIV self-report version had a ROC curve area of 0.806 (95% CI = 0.639 to 0.971). The optimal cut-off was >1. Sensitivity was = 0.778 (0.399 to 0.972) and specificity (95% CI) was 0.805 (0.639 to 0.918)

The Anxiety thermometer from the Emotion Thermometer had a ROC curve area of 0.869 (95% CI = 0.767 to 0.971). Optimal cut-off was >2. Its Sensitivity was = 1 (0.663 to 1) and specificity (95% CI) = 0.675 (0.502 to 0.819)

The GAD7 had a ROC curve area of 0.821 (95% CI = 0.691 to 0.952). The optimal cut-off was >15. Sensitivity was 0.777 (0.400 to 0.971); specificity (95% CI) = 0.729 (0.558 to 0.862)

CONCLUSIONS Against the MINI GAD criterion; the optimal method to detect anxiety (GAD) after cancer appears to be the Anxiety thermometer from the emotion thermometers. This is also the briefest method. However the other methods also performed well.