Pain-related distress and clinical depression in chronic pain: A comparison between two measures

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Background & aims

- Depression is a frequent co-morbid diagnosis in chronic pain, and has been shown to predict poor outcome. Several reviews have described the difficulty in accurate and appropriate measurement of depression in pain patients\(^1\), and have proposed a distinction between pain-related distress and clinical depression\(^2\).
- This study focuses on two commonly used measures: The Structured Clinical Interview for DSM-IV (SCID-D)\(^3\), Depression module, and the Hospital Anxiety and Depression Scale (HADS-D)\(^4\). While the SCID was developed to diagnose people with depression, the HADS was developed specifically for use with patients from a range of medical conditions and includes less somatic items, and should therefore be relatively free of criterion contamination.
- The present study aimed to compare a) the overlap and differential categorisation of pain patients as depressed, and b) the relationship to disability between the SCID-D and the HADS-D (correlation analysis and sensitivity/specificity discrimination).

Methods

Sample

- N = 78 adults with chronic back pain participated in this study (23 male/55 female; mean age 45.3 years; SD = 13.4). Primary complaints were the lower back (79.5%), cervical back pain (18%), and thoracic back pain (2.5%).

- Measures
  - Pain Disability Index: The PDI is a brief 7-item self-report measure of the extent of pain interfering with different domains of an individual’s life\(^5\).
  - HADS: Self-report measure that consists of 14 items grouped into two subscales, measuring anxiety and depression. Depression scores above 8 indicate possible cases, and above 11 probable cases.
  - SCID depression module: Provides 9 items with an individual score, and final dichotomised classification that identifies present or absent depression.

- Statistical analyses
  The relationship between the two depression measures and disability was investigated by Pearson and Spearman correlation coefficients. The level of significance was \(p < .05\). Several ROC analyses were performed to evaluate sensitivity and specificity.

Results

Relationship between the two measures and disability:
- Table 1 shows the levels of agreement and disagreement for both measures in defining patients as depressed. With the HADS-D, there was an agreement for inclusion on 32%, which decreased to 19%, when the HADS-D11 cut-off was used.
- A moderately strong Pearson’s correlation was found between the HADS-D and the PDI total score \((r = .551, p < .0001)\) and a weak Spearman’s correlation between the SCID-D and PDI \((r = -.227, p < .05)\).

Sensitivity/Specificity of detecting disability:
- Results from ROC analyses showed that the HADS-D provided the better discriminatory ability overall, demonstrating a better balance between sensitivity and specificity compared to the SCID-D, although a direct comparison between the two measures showed no difference (see Tab. 2 & Fig. 1).

Conclusions

- The findings from this study suggest that the HADS-D is a better measure of pain-related distress in pain populations, as it is more closely related to disability scores, and better able to detect disability than the SCID-D.
- The HADS depression scale is a reasonably accurate indicator of pain-related distress in chronic pain patients, and captures the link between disability and mood. It is likely that the SCID is better suited to identifying subgroups with more pronounced psychiatric disturbance. Our findings highlight the value of multi-method assessment strategies in depressed chronic back pain patients.
- Future research should investigate whether pain-related distress and clinical depression are distinct constructs, or whether depression is a more extreme manifestation on a continuum of a single construct.
- Further research is needed to investigate the exact characteristics of pain-related distress and clinical depression in chronic pain patients, and whether they require different psychological interventions.

References


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