Measuring depressive thinking in chronic pain: Development and preliminary validation of the Sentence Completion Test for Chronic Pain (SCP)

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**Introduction**

- Research on the relationship between chronic pain and depression addresses conceptual issues as well as issues of measurement. Depression is a common feature of chronic pain while previous studies have demonstrated that the type of depression experienced by chronic pain patients differs qualitatively from patients with clinical depression by a tendency for health-related negative processing. However, there is only limited research into the content and frequency of depressed cognitions in pain patients.
- This poster reports the development of the Sentence Completion Test for Chronic Pain (SCP), an idiographic measure for assessing cognitive content and depressive thinking in chronic pain patients. This study investigated the inter-rater reliability and content validity of the SCP and describes the development of the coding manual.

**Methods**

- **Sample**
  - N = 172 adults (mean age 45.5 years; SD = 13.5): 47 depressed chronic pain patients; 41 non-depressed chronic pain patients; 42 depressed patients without pain & 42 matched healthy controls.
- **Statistical analyses**
  - ANOVAs were conducted to examine differences between the groups in valence and content and Pearson correlation coefficients were calculated for content validity.
- **Validity I: Correlations of SCP mean scores and HADS**

<table>
<thead>
<tr>
<th>Measure</th>
<th>HADS Depression</th>
<th>HADS Anxiety</th>
<th>Neg. health</th>
<th>Pos. health</th>
<th>Health completions (excl. pain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HASDS Depression</td>
<td>-.68**</td>
<td>-.62**</td>
<td>-.50**</td>
<td>.25**</td>
<td>-.33**</td>
</tr>
<tr>
<td>Negative health</td>
<td>-.44**</td>
<td>-.21**</td>
<td>-.04</td>
<td>.33**</td>
<td>.77**</td>
</tr>
<tr>
<td>Positive health</td>
<td>-.52**</td>
<td>.10**</td>
<td>.17**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health completions (excl. pain)</td>
<td>-.41**</td>
<td>-.21**</td>
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<td>.77**</td>
</tr>
</tbody>
</table>

*Correlation is significant at \( p < .05 \), ** correlation is significant at \( p < .01 \)

**Validity II: Mean number of completions by group**

- Univariate effects revealed that depressed pain patients generated more completions with negative valence, fewer with positive valence, and more health-related completions compared to non-depressed pain patients.
- The depressed pain group generated significantly more negative health completions, whether pain completions were excluded or not, compared to the remaining groups. However, differences were more pronounced with the severe cut-off point.

**Conclusion**

- The SCP demonstrated good inter-rater reliability (when coding rules were used for classification) and content validity. In line with previous results, results suggest for the depressed pain patients a tendency for health related negative processing. This measure is potentially useful for complementing questionnaires by an idiographic assessment of depressive thinking and for generating hypotheses about key problems within a cognitive-behavioural case formulation. Further studies are needed to establish the clinical utility of the SCP.

**Results**

- The internal consistency of the SCP for negative completions, negative health completions and negative pain completions was tested using the Kuder-Richardson coefficient (KR-20). A coefficient of \( r_{20} = .75 \) was observed for negative completions, \( r_{20} = .68 \) for negative health, and \( r_{20} = .70 \) for negative pain completions, indicating adequate internal consistency, as all coefficients were well within acceptable conventional limits.
- **Validity I: Correlations of SCP mean scores and HADS**
- **Validity II: Mean number of completions by group**
- **Conclusion**

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