Experiential Avoidance and Anxiety Sensitivity in the Prediction of Health-Related Anxiety

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Collaborators

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Health Anxiety

• Occasional health concerns are normal

• Hypochondriasis (health anxiety)
  – DSM-V

• Psychological models and treatments
  – Anxiety sensitivity (AS)
    • Misinterpretations of body sensations lead to anxiety
    • Cognitive restructuring and exposure therapy
  – Experiential avoidance (EA)
    • Psychological inflexibility (unwilling to endure body sensations)
    • ACT
The Present Study

• Purpose
  – Investigate the role of AS and EA in explaining health anxiety symptoms

• Hypotheses
  – Both AS and EA would be associated with health anxiety symptoms
  – Both AS and EA would uniquely predict health anxiety symptoms
Method

• Participants
  – 124 undergraduates at UNC-Chapel Hill
  – Scored ≥ 18 on the Short Health Anxiety Inventory (SHAI)
  – Mean age = 19.9 years (SD = 2.24)
  – 69% female

• Assessment
  – Acceptance and Action Questionnaire
  – Anxiety Sensitivity Index-3rd version
  – Center for Epidemiologic Studies Depression Scale
  – SHAI

• All measures completed online
# Results

Mean scores on study measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHAI</td>
<td>22.77</td>
<td>5.87</td>
</tr>
<tr>
<td>CES-D</td>
<td>22.16</td>
<td>9.85</td>
</tr>
<tr>
<td>ASI-3 physical</td>
<td>7.89</td>
<td>5.04</td>
</tr>
<tr>
<td>ASI-3 social</td>
<td>10.85</td>
<td>4.28</td>
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<tr>
<td>ASI-3 cognitive</td>
<td>6.38</td>
<td>5.26</td>
</tr>
<tr>
<td>AAQ-II</td>
<td>42.34</td>
<td>9.16</td>
</tr>
</tbody>
</table>
# Results

Correlations among study variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>ASI-3 social</th>
<th>ASI-3 physical</th>
<th>ASI-3 cognitive</th>
<th>AAQ-II</th>
<th>CES-D</th>
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</thead>
<tbody>
<tr>
<td>SHAI</td>
<td>.32*</td>
<td>.45*</td>
<td>.25*</td>
<td>-.28*</td>
<td>.15</td>
</tr>
<tr>
<td>ASI-3 Social</td>
<td>.54*</td>
<td></td>
<td>.37*</td>
<td>-.47*</td>
<td>.21</td>
</tr>
<tr>
<td>ASI-3 Phys</td>
<td></td>
<td>.58*</td>
<td></td>
<td>-.27*</td>
<td>.09</td>
</tr>
<tr>
<td>ASI-3 Cog</td>
<td></td>
<td></td>
<td>-.33*</td>
<td></td>
<td>.08</td>
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<tr>
<td>AAQ-II</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.39*</td>
</tr>
</tbody>
</table>

*p < .006
## Results

### Partial Correlations with the SHAI

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Controlling for</th>
<th>Partial $r$</th>
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<td>ASI-3 Physical</td>
<td>AAQ-II</td>
<td>.41*</td>
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<tr>
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<td>AAQ-II</td>
<td>.23</td>
</tr>
<tr>
<td>ASI-3 Cognitive</td>
<td>AAQ-II</td>
<td>.18</td>
</tr>
<tr>
<td>AAQ-II</td>
<td>ASI-3 Physical</td>
<td>-.19</td>
</tr>
<tr>
<td>AAQ-II</td>
<td>ASI-3 Social</td>
<td>-.16</td>
</tr>
<tr>
<td>AAQ-II</td>
<td>ASI-3 Cognitive</td>
<td>-.22</td>
</tr>
</tbody>
</table>

* $p < .006$
Results

• Regression #1 predicting SHAI
  – Step 1: CES-D ($R^2 = .02, p = ns$)
  – Step 2: AAQ ($\Delta R^2 = .06, p < .01$)
  – Step 3: ASI-3 ($\Delta R^2 = .16, p < .01$)

• Regression #2 predicting SHAI
  – Step 1: CES-D ($R^2 = .02, p = ns$)
  – Step 2: ASI-3 ($\Delta R^2 = .20, p < .01$)
  – Step 3: AAQ ($\Delta R^2 = .02, p = ns$)
## Results

### Final Regression Model Predicting SHAI Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R^2$</th>
<th>Beta</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Model</td>
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<td></td>
<td>&lt;.01</td>
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<td>CES-D</td>
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<td>n.s.</td>
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<td>AAQ-II</td>
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<td>-.15</td>
<td>-1.53</td>
<td>n.s.</td>
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<tr>
<td>ASI-3 Physical</td>
<td>.41</td>
<td></td>
<td>3.78</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>ASI-3 Social</td>
<td></td>
<td>.04</td>
<td>0.34</td>
<td>n.s.</td>
</tr>
<tr>
<td>ASI-3 Cognitive</td>
<td></td>
<td>-.05</td>
<td>-0.47</td>
<td>n.s.</td>
</tr>
</tbody>
</table>
Conclusions

• Both AS and EA are broadly related to health anxiety symptoms

• Fears of *physical*, but not social or cognitive, manifestations of anxiety explain health anxiety over and above EA
  
  – Relative to unwillingness to endure negative private experiences, dysfunctional beliefs about these experiences provide a more empirically valid basis for understanding health anxiety
  
  – EA might be too general to explain health anxiety
Implication for Treatment

• Treatment procedures targeting AS might be more effective and efficient relative to those targeting EA
  – Psychoeducation about the nature of anxiety
  – Cognitive restructuring
  – Interoceptive exposure

• Need for a study to directly compare the efficacy of exposure-based and ACT
Limitations and Future Directions

• Non-treatment seeking sample
  – But high scores on SHAI (analogue?)
• Correlational design
• Third variables not measured in the present study?
• AAQ-II measures EA very broadly
• Need to develop more problem-specific measures of EA