Can resilience predict level of hopelessness when controlling for stressful life events, mood and personality (NEO-PI-R)?

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Definition and Characteristics

• “Relative good outcome despite experiencing situations that have been show to carry significant risk for developing psychopathology” (Luthar, Cicchetti, & Becker, 2000; Masten & Reed, 2002; Rutter, 2000)

1. Individuals constitutional and dispositional traits and competencies
2. Family cohesion, warmth and absence of discord
3. External support system that reinforce and promote efficient coping
   (Garnerzy, 1983; Werner & Smith 1992; 2002)
Advantages of having a scale

1. Indication of protective resources for groups/individuals
2. Screen large samples for subgroups of special interest (e.g. for longitudinal studies)
3. Track changes in protective factors
4. Facilitates experimental studies
5. Possibly financial and time saving

Development of scale

• Literature review
  – Registration of protective factors
  – Sorted the protective factors into 15 different categories
    • 295 items
  – Reviewed by 3 professors, 8 psychology students and 5 adult not related to psychology
    • 200 items
  – Explorative factor analyses
    • 45 items
Resilience Scale for Adults

- Psychometric qualities for total scale Cronbachs alpha .91
  - Hjemdal et al., (2001)
- Differentiate between clinical (N = 60) and non-clinical sample (N = 276)
  - Personal competence $t = 9.25^{***}$
  - Social competence $t = 3.30^{**}$
  - Family coherence $t = 5.33^{***}$
  - Social resources $t = 2.12^*$
  - Structured style $t = 3.38^{***}$
- RSA total $t = 7.78^{***}$
  - (Friborg, Hjemdal, Rosenvinge, & Martinussen, 2003)

Criterion validity (N = 648)

Correlations

<table>
<thead>
<tr>
<th>Instruments</th>
<th>PC</th>
<th>SC</th>
<th>SS</th>
<th>FC</th>
<th>SR</th>
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</thead>
<tbody>
<tr>
<td>Sense of Coherence</td>
<td>.70</td>
<td>.36</td>
<td>.52</td>
<td>.55</td>
<td>.55</td>
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<tr>
<td>Optimism</td>
<td>.68</td>
<td>.48</td>
<td>.40</td>
<td>.42</td>
<td>.53</td>
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<tr>
<td>Active coping</td>
<td>.42</td>
<td>.28</td>
<td>.28</td>
<td>.23</td>
<td>.30</td>
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<tr>
<td>Satisfaction w/life</td>
<td>.62</td>
<td>.31</td>
<td>.43</td>
<td>.51</td>
<td>.48</td>
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<tr>
<td>Avoidance coping</td>
<td>-.16</td>
<td>-.21</td>
<td>-.18</td>
<td>-.21</td>
<td>-.28</td>
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<tr>
<td>Wishful Thinking</td>
<td>-.35</td>
<td>n.s</td>
<td>-.29</td>
<td>-.20</td>
<td>-.15</td>
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<tr>
<td>Symptoms, SCL</td>
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<td>-.31</td>
<td>-.43</td>
<td>-.50</td>
<td>-.46</td>
</tr>
</tbody>
</table>

(Friborg & Hjemdal, 2004)
RSA and number of factors

- Confirmatory factor analyses ($N_1 = 482$ and $N_2 = 201$)
  - Remaining 33 items
  - Six factors
    - Absolute fit: S-B $\chi^2$ (34) = 46.92, $p = .07$
    - Relative fit: RMSEA ranging from .013 to .042

<table>
<thead>
<tr>
<th>Factor</th>
<th>$\alpha_1$</th>
<th>$\alpha_2$</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perception of self</td>
<td>.70</td>
<td>.81</td>
<td>6</td>
</tr>
<tr>
<td>2. Planned future</td>
<td>.66</td>
<td>.78</td>
<td>4</td>
</tr>
<tr>
<td>3. Social competence</td>
<td>.76</td>
<td>.75</td>
<td>6</td>
</tr>
<tr>
<td>4. Structured style</td>
<td>.69</td>
<td>.67</td>
<td>4</td>
</tr>
<tr>
<td>5. Family cohesion</td>
<td>.78</td>
<td>.79</td>
<td>6</td>
</tr>
<tr>
<td>6. Social resources</td>
<td>.69</td>
<td>.77</td>
<td>7</td>
</tr>
</tbody>
</table>

Content of the RSA factors

1. **Perception of self**
   - Confidence in own abilities, self-confidence, self-efficacy, positive outlook, realistic
2. **Planned future**
   - Planning ability, optimistic view of future, goal orientated
3. **Social competence**
   - Extraversion, flexibility, establish friendships, humor
4. **Structured style**
   - Goal oriented, planfulness, organization of own time, rule/ routine oriented
5. **Family cohesion**
   - Shared values, enjoy family, cohesion, shared optimistic view of future, loyalty, mutual appreciation
6. **Social resources**
   - Social support, presence of important person outside family, encouragement, feeling of cohesion, help when needed, appreciation
Predictive validity (N = 159)

Personality and mental health I

- NEO-PI-R (Costa & McCrae, 1995)
  - Five factors
    - Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness
  - NEO-PI-R predictor of mental health
    - Lower Neurotisism and higher scores on the remaining factors is associated with faster recovery and less symptomatology after trauma
    - (Davey, Eaker, & Walters, 2003; Riolli, Savicki, & Cepani, 2002)
Personality and mental health II

• Higher Neuroticism
  – More negative affect, emotional instability, lower self-esteem, more depressive and anxiety symptoms
    • (Bagby, Kennedy, Dickens, Mmifie, & Schuller, 1997; Duggan, Sham, Lee, Minne, & Murray, 1995; Enns & Cox, 1997; McCrae, 1990; Trull & Sher, 1994; Watson, Clark & Harkness, 1994)
  – 12 year longitudinal study – higher Neuroticism the strongest predictor for poor outcome
    • (Surtees & Wainwright, 1996)
  – Greater degree of psychological stress when experiencing stressful life events
    • (Bolger & Schilling, 1991; De Jong, van Sonderen & Emmelkamp, 1999; Mills & Huebner, 1998)

(N = 666)

<table>
<thead>
<tr>
<th>Perception Self</th>
<th>Perception Future</th>
<th>Social Compet.</th>
<th>Structure d Style</th>
<th>Family Cohesion</th>
<th>Social resources</th>
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<tbody>
<tr>
<td>Neuroticism</td>
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<td>-.49**</td>
<td>-.29**</td>
<td>-.20**</td>
<td>-.27**</td>
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<td>.23**</td>
<td></td>
<td>-.27**</td>
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<td>Extraversion</td>
<td>.41**</td>
<td>.37**</td>
<td>.72**</td>
<td>.08</td>
<td>.32**</td>
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<td>.46**</td>
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<td>Openness</td>
<td>.15**</td>
<td>.12**</td>
<td>.21**</td>
<td>-.05</td>
<td>-.04</td>
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<td></td>
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<td>.07</td>
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<td>Agreeableness</td>
<td>.03</td>
<td>.04</td>
<td>.16**</td>
<td>-.03</td>
<td>.26**</td>
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<td></td>
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<td>.24**</td>
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<td>.32**</td>
<td>.43**</td>
<td>.16**</td>
<td>.70**</td>
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<td>.17**</td>
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</table>
The relation between resilience and hopelessness

- Hopelessness is a strong predictor of
  - Depression
  - Development and predisposition of suicide ideation
    - (Weishaar & Beck, 1992)
  - The relation between depression and suicide
    - (Beck & Rush, 1978)

Research question

- Will the RSA predict level of hoplessness over and above variables like gender, age, stressful life events, anxiety and depressive symptoms, and personality (NEO-PI-R)?

- The cake illustration now!!!
Method and materials

- Correlational study
  - N = 532, 413 women, M = 22.0, SD = 3.30

- Measures administered
  - The Beck Hopelessness Scale (20 items)
  - Stressful life events (18 items)
  - Hopkins symptom check list (25 items)
  - NEO-PI-R (240 items)
  - Resilience Scale for Adults (33 items)

Analysis

- Multiple Hierarchical linear regression
- Dependent variable
  - The Beck Hopelessness Scale
- Independent variables entered in steps
  1. Gender
  2. Age
  3. HSCL-25
  4. NEO-PI-R
     - (Neuroticism, Extraversion, Agreeableness, Openness, Conscientiousness)
  5. Stressful life events
  6. Resilience Scale for Adults
Results with hopelessness as dependent variable

<table>
<thead>
<tr>
<th>Steps</th>
<th>F change</th>
<th>R²</th>
<th>t</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Gender</td>
<td>.12</td>
<td>.00</td>
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<tr>
<td>2</td>
<td>Age</td>
<td>.89</td>
<td>.00</td>
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<td>3</td>
<td>Life events</td>
<td>15.06***</td>
<td>.03</td>
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<td>4</td>
<td>HSCL-25</td>
<td>207.86***</td>
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<td>5</td>
<td>NEO-PI-R</td>
<td>19.95***</td>
<td>.11</td>
</tr>
<tr>
<td>6</td>
<td>RSA</td>
<td>43.91***</td>
<td>.05</td>
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</tbody>
</table>

Conclusion

- Resilience Scale for Adults (RSA) is a reliable and valid measure of protective factors
- RSA measure protective factors that are both strongly and mildly associated to NEO-PI-R
- RSA measures protective factors that predict hopelessness in an adult sample, even when controlling for gender, age, anxiety and depressiv symptoms, personality (NEO-PI-R) and stressful life events
References

- Hjemdal, O., Vogel, P., Solen, S., Hagen, K., Stiles, T. C. (Conditionally accepted)
- Hjemdal, O., Friborg, O., Braun, S., Kempenaers, C., Linkowski, P., & Fossion, P. (Conditionally accepted)

Thank you for your time

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