Symptom patterns and the course of OCD

Claudia D. van Borkulo\textsuperscript{1}, Brenda Bailey\textsuperscript{2}, Bradley C. Riemann\textsuperscript{2}, & Richard J. McNally\textsuperscript{3}

\textsuperscript{1}University of Amsterdam; \textsuperscript{2}Rogers Memorial Hospital; \textsuperscript{3}Harvard University
Outline

• Design of the study

• Initial results

• Tackle some issues

• More results

• Conclusion and discussion
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Design of study

- 449 adults (51% female)
- Exposure and Response Prevention (ERP) at the OCD Center at Rogers Memorial Hospital (Oconomowoc)
- Upon admission to ERP and discharge:
  - Y-BOCS (Yale-Brown Obsessive and Compulsive Scale)
  - QIDS (Quick Inventory of Depressive Symptomatology)
Design of study

• 449 patients with OCD at baseline

  Two groups: persisters (n = 248) and remitters
  OCD (n = 201)
Design of study

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Design of study

- **Networks of 10 OCD symptoms:** from Y-BOCS at baseline

- **Advanced network estimation:** regularized partial correlations (EBICglasso; Epskamp et al. 2016)

- **Regularization:** to find optimal balance between parsimony and goodness of fit

- **Comparison of networks:** Network Comparison Test (NCT; van Borkulo et al. 2016)
Networks of persisters and remitters

- Persisters (248)
- Remitters (201)

- Code in R: NCT(data1, data2, gamma = .5, it = 1000)
- Persisters have a higher global strength ($p = .011$)

<table>
<thead>
<tr>
<th>tmO</th>
<th>inO</th>
<th>dsO</th>
<th>rsO</th>
<th>cnO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time occupied by obsessive thoughts</td>
<td>Interference due to obsessive thoughts</td>
<td>Distress associated with obsessive thoughts</td>
<td>Resistance against obsessions</td>
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<td>Time spent performing compulsive behaviors</td>
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<td>Resistance against compulsion</td>
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But…

…persister have higher means on almost all symptoms
Confounds

• Severity?

• No. Not by itself (networks are about covariances)

• Possible confounds:
  • floor/ceiling effects (influences (co)variance)
  • An unmodelled latent variable that is related to OCD differently in more severe patients than in less severe patients
Floor/ceiling effects

Persisters

Remitters
Controlling for differences in severity

• Regressing out (partiailling out) external measure of severity:
  
  QIDS at admission (following van Borkulo et al. 2015)

• All variance in Y-BOCS items that can be explained by QIDS is partialled out
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Ask me later if you want to know how this works! ;-)

Unexplained parts
An unmodelled latent variable related to OCD severity systematically controlling for severity by partialling out QIDS at admission:

- Global strength invariance test: p = .07
- Depression could be the unmodelled latent variable
- Apparently, depression is related differently to OCD in persisters compared to remitters.
- Let’s model it…
Modelling OCD with depression

- **tmO**: Time occupied by obsessive thoughts
- **inO**: Interference due to obsessive thoughts
- **dsO**: Distress associated with obsessive thoughts
- **rsO**: Resistance against obsessions
- **cnO**: Degree of control over obsessive thoughts
- **tmC**: Time spent performing compulsive behaviors
- **inC**: Interference due to compulsive behaviors
- **dsC**: Distress associated with compulsive behaviors
- **rsC**: Resistance against compulsion
- **cnC**: Degree of control over compulsive behaviors
Modelling OCD with depression

Global strength invariance test: $p = .003$
Conclusion

- OCD persisters have a higher global strength than remitters
- After controlling for differences in severity this difference becomes smaller
- Depressive symptomatology is differently related to OCD in more severe patients than in less severe patients
- In line with Abramowitz et al. (2000): severe depression interferes with ERP outcome
Discussion

Possible explanation of results (under the assumption that the association patterns in the groups also pertain to the individuals in the groups):

• Hampered effect of ERP in persisters because of stronger and/or more associations between obsessive thoughts and compulsive behaviors

• It is harder for persisters not to perform their usual compulsive behavior

• Depression possibly aggravates the obsessive thoughts component, thereby making it harder to suppress the compulsive behavior.

• Therapist may spend less time treating OCD if also attend to depression
THANK YOU BOSTON
References and contact info


http://cvborkulo.com
cvborkulo@gmail.com
Accuracy

Persisters

Remitters

Black lines as an example to show which CIs overlap and which do not