Identifying barriers to medication adherence using a novel, theory-guided questionnaire: steps towards complex intervention development

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Background

• Non-adherence to prescribed medicines is a “worldwide problem of striking magnitude” (WHO, 2003)

• Current interventions achieve modest improvements at best (Nieuwlaat et al., 2014)
  ❖ Lack of theoretical underpinnings
  ❖ Lack of tailoring to meet individual need

• IMAB-Q
  ❖ 30 item questionnaire based on the domains of the Theoretical Domains Framework (TDF)

https://www.uea.ac.uk/pharmacy/research/imab-q/quest
Methods

Questionnaire development
- Three questionnaire statements per relevant domain of the TDF
- Each statement scored from 1-5
- Higher scores indicate stronger perceived barriers

Questionnaire distribution
- Patients prescribed medicines for the prevention of cardiovascular disease
- Distributed from nine communities pharmacies across Norfolk

Data analysis
- IMAB-Q score for each TDF domain calculated: ranged from 3-15
- Retrospective grouping of TDF domains to COM-B model
Key findings

- 608 questionnaires analysed

<table>
<thead>
<tr>
<th>COM-B component</th>
<th>TDF Domain</th>
<th>Median (IQR) Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPABILITY</td>
<td>Skills</td>
<td>4 (3, 5)</td>
</tr>
<tr>
<td></td>
<td>Knowledge</td>
<td>4 (3, 6)</td>
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<tr>
<td></td>
<td>Memory, attention &amp; decision processes</td>
<td>4 (3, 6)</td>
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<tr>
<td>OPPORTUNITY</td>
<td>Environmental context &amp; resources</td>
<td>4 (3, 6)</td>
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<td></td>
<td>Social Influences</td>
<td>5 (4, 6)</td>
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<tr>
<td>MOTIVATION</td>
<td>Beliefs about capabilities</td>
<td>5 (4, 7)</td>
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<tr>
<td></td>
<td><strong>Beliefs about consequences</strong></td>
<td><strong>7 (5, 8)</strong></td>
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<tr>
<td></td>
<td>Motivation &amp; goals</td>
<td>4 (3, 6)</td>
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<td></td>
<td>Goal conflicts</td>
<td>5 (3, 6)</td>
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<td></td>
<td><strong>Emotion</strong></td>
<td><strong>6 (4, 8)</strong></td>
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</tbody>
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- Strongest barriers perceived with motivation to adhere
Conclusions

• Beliefs about consequences
  - Well recognised

• Effects of emotions
  - Received little attention

• IMAB-Q validated for identifying barriers to adherence
  - Tool to enable matching of behaviour change techniques to behavioural determinants of non-adherence