Using Thrive’s *Insight* system to explore the effectiveness of STH

Royal College of Physicians

18 November 2013
The ‘Insight’ Database

• Introduced in 2010 for all clients
• Demographic data:
  – Date of Birth, gender, condition personal details
• Behavioural scores – a range of different behaviours recorded at each session.
  – include social interaction, communication, motivation etc

• Microsoft Access database
  – Extract and analyse data
Demographics
# Age and gender

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number</strong></td>
<td>69</td>
<td>202</td>
<td>271</td>
</tr>
<tr>
<td><strong>Percentage</strong></td>
<td>25.5%</td>
<td>74.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Mean age</strong></td>
<td>43.7 years</td>
<td>38.2 years</td>
<td></td>
</tr>
</tbody>
</table>
### Disability groups

<table>
<thead>
<tr>
<th>Disability Group</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autism</td>
<td>20</td>
<td>8.0</td>
</tr>
<tr>
<td>Brain Injury</td>
<td>2</td>
<td>.8</td>
</tr>
<tr>
<td>Dementia</td>
<td>7</td>
<td>2.8</td>
</tr>
<tr>
<td>Drug/Alc Misuse</td>
<td>3</td>
<td>1.2</td>
</tr>
<tr>
<td>Hearing Impaired</td>
<td>1</td>
<td>.4</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>101</td>
<td>40.4</td>
</tr>
<tr>
<td>Mental Health</td>
<td>101</td>
<td>40.4</td>
</tr>
<tr>
<td>Rehabilitation - Neuro Stroke</td>
<td>6</td>
<td>2.4</td>
</tr>
<tr>
<td>Rehabilitation - Other</td>
<td>7</td>
<td>2.8</td>
</tr>
<tr>
<td>Visually Impaired</td>
<td>2</td>
<td>.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>250</td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
## Time spent at Thrive

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Mean (Years)</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battersea</td>
<td>186</td>
<td>1.5 (± 2.9)</td>
<td>19.5</td>
</tr>
<tr>
<td>Trunkwell</td>
<td>85</td>
<td>4.4 (± 4.4)</td>
<td>18.0</td>
</tr>
<tr>
<td>Total</td>
<td>271</td>
<td>2.4 (± 3.7)</td>
<td>19.5</td>
</tr>
<tr>
<td>Male</td>
<td>69</td>
<td>2.7</td>
<td>p &lt;0.05</td>
</tr>
<tr>
<td>Female</td>
<td>202</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>
Behavioural Data
Behavioural data analysis

• scores of social interaction, communication, motivation, task engagement

  – Most data collected for these particular behaviours
  – These behaviours appear to represent a key element of the STH programme at Thrive
Study timeline

STH Programme
Study timeline

participants enter
Study timeline

participants enter

participants leave
Study timeline

participants enter

1 August 2010
*Insight* introduced

participants leave
Study timeline

1 August 2010
*Insight* introduced

participants enter

participants leave
Study timeline

- Participants enter
- 1 August 2010
- Insight introduced
- Participants leave
Longitudinal Analysis

• ‘longitudinal’ – how the behavioural scores of clients change over time at Thrive
Longitudinal study

participants enter

participants leave

Change in scores
Longitudinal study

participants enter

Time ‘0’

participants leave

Change in scores
Longitudinal study

participants enter

Time ‘0’

Time ‘0’

participants leave

Change in scores
Longitudinal study

Selection by time at Thrive

Time ‘0’

Change in scores

participants enter

participants leave
Social interaction – all participants
Social interaction

(excluding participants who had attended > 12 months)
Social interaction

(excluding participants who had attended > 12 months)
Social interaction

(excluding participants who had attended > 12 months)
Social interaction

(excluding participants who had attended > 12 months)
Social interaction & communication

All conditions:
excluding participants who had attended > 3 months
Social interaction & communication

Participants with learning disabilities:
excluding participants who had attended > 3 months
Participants with mental health problems:
excluding participants who had attended > 3 months
Motivation & task engagement

All conditions:
excluding participants who had attended > 3 months
Motivation & task engagement

Participants with learning disabilities: excluding participants who had attended > 3 months
Motivation & task engagement

Participants with mental health problems:
excluding participants who had attended > 3 months
Cross-sectional analysis

• ‘Cross-sectional’ – how different are the behavioural scores of clients who have been at Thrive for different periods of time?
Cross-sectional analysis
Social Interaction

![Bar chart showing social interaction over time at Thrive.](chart)

- **6 months or less**: 131
- **6 – 12 months**: 20
- **1-2 Years**: 18
- **more than 2 years**: 40

*Note: Significance indicated by *.
Cross-sectional analysis

Communication

<table>
<thead>
<tr>
<th>Time at Thrive</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months or less</td>
<td>91</td>
</tr>
<tr>
<td>6 – 12 months</td>
<td>18</td>
</tr>
<tr>
<td>1-2 Years</td>
<td>14</td>
</tr>
<tr>
<td>more than 2 years</td>
<td>38</td>
</tr>
</tbody>
</table>
Cross-sectional analysis

Motivation

<table>
<thead>
<tr>
<th>Time at Thrive</th>
<th>6 months or less</th>
<th>6 - 12 months</th>
<th>1-2 Years</th>
<th>more than 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Observations</td>
<td>122</td>
<td>18</td>
<td>12</td>
<td>38</td>
</tr>
</tbody>
</table>

* Denotes significant difference.
Cross-sectional analysis

Task Engagement

Time at Thrive

- 6 months or less: 147
- 6 - 12 months: 20
- 1-2 Years: 17
- more than 2 years: 41
Conclusions

• Significant improvements in scores of social interaction, motivation and task engagement
• No significant changes in communication scores
• Effect seen after approx 3 months
• Maximum effect and plateau at around 12 months
• ‘Fade’ beyond 1-2 years?
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Some limitations

• Not a ‘validated’ instrument (no normative data)
• Only 1 item per behaviour
• Not all behaviours recorded (reduced numbers for analysis)
• Different scales for different behaviours
• But scope for development and sensitive to change