Executive Dysfunction

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Definitions

- Executive function is the ability to integrate various component cognitive abilities to produce meaningful task performance.

- There are two broad areas of executive dysfunction:
  - Emotional-Behavioral / Self-Control
  - Metacognitive / Productive
Definitions

- Emotional-Behavioral / Self-Control
  - Inhibit
  - Shift
  - Emotional Control
  - Self-Monitor
Definitions

- Metacognitive / Productive
  - Initiation
  - Working Memory
  - Plan / Organize
  - Task Monitoring
  - Organization of Materials
## Stage Model of Occupational Rehabilitation

<table>
<thead>
<tr>
<th>Stage</th>
<th>Area Assessed</th>
<th>Measured by, or in terms of ...</th>
<th>Usual Hierarchy</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Earning Capacity</td>
<td>Earned income over expected work-life.</td>
<td>RC, VE</td>
</tr>
<tr>
<td>7</td>
<td>Vocational Handicap</td>
<td>Ability to perform a particular job.</td>
<td>RC, VE, OT</td>
</tr>
<tr>
<td>6</td>
<td>Employability</td>
<td>Ability to become employed in the local labor market.</td>
<td>RC, VE, OT</td>
</tr>
<tr>
<td>5</td>
<td>Vocational Feasibility</td>
<td>Ability to perform fundamental work behaviors.</td>
<td>OT, VE</td>
</tr>
<tr>
<td>4</td>
<td>Occupational Disability</td>
<td>Vocational, societal and familial consequences of functional limitations.</td>
<td>OT, VE, PT, SLP</td>
</tr>
<tr>
<td>3</td>
<td>Functional Limitation</td>
<td>Inability to perform component actions and tasks.</td>
<td>OT, PT, SLP, VE, NP</td>
</tr>
<tr>
<td>2</td>
<td>Impairment</td>
<td>Loss or restriction of person component.</td>
<td>MD, NP, OT, PT, SLP</td>
</tr>
<tr>
<td>1</td>
<td>Pathology &amp; Diagnosis</td>
<td>Imaging, laboratory studies, observed signs, reported symptoms.</td>
<td>MD, NP, SLP</td>
</tr>
</tbody>
</table>
Whose professional territory?

- Neuropsychologists are limited by their highly-structured tools to evaluating impairment and component function.
- PTs focus on physical capacity; often limited by executive dysfunction, but not measured by their tests.
- OTs and SLPs and CVEs can focus on less-structured occupational performance that is sensitive to executive dysfunction.
### Stage Model of Occupational Rehabilitation

<table>
<thead>
<tr>
<th>Stage</th>
<th>Area Assessed</th>
<th>Usual Hierarchy</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Earning Capacity</td>
<td>RC, VE</td>
<td>DOL, Census, VALE</td>
</tr>
<tr>
<td>7</td>
<td>Vocational Handicap</td>
<td>RC, VE, OT</td>
<td>O*NET, DOT, JA</td>
</tr>
<tr>
<td>6</td>
<td>Employability</td>
<td>RC, VE, OT</td>
<td>EDD</td>
</tr>
<tr>
<td>5</td>
<td>Vocational Feasibility</td>
<td>OT, VE</td>
<td>WCE</td>
</tr>
<tr>
<td>4</td>
<td>Occupational Disability</td>
<td>OT, VE, PT, SLP</td>
<td>Work Simulation</td>
</tr>
<tr>
<td>3</td>
<td>Functional Limitation</td>
<td>OT, PT, SLP, VE, NP</td>
<td>FCE</td>
</tr>
<tr>
<td>2</td>
<td>Impairment</td>
<td>MD, NP, OT, PT, SLP</td>
<td>AMA Guides</td>
</tr>
<tr>
<td>1</td>
<td>Pathology &amp; Diagnosis</td>
<td>MD, NP, SLP</td>
<td>Multiple</td>
</tr>
</tbody>
</table>
Executive Function Screening

- Behavior Rating Inventory of Executive Function (BRIEF-A)
  - Self-Report
  - Informant-Report
- Ruff Neurobehavioral Inventory
  - Self-Report
- Use either to screen prior to evaluation.
  - BRIEF is quicker and easier to use.
As an FCE morphs into WCE, work simulations become necessary.

A combination of demand-structured work samples and less-structured situational assessments is optimal.

Generic and Job-Specific work simulations are many clinics’ next area of expansion.
**Generic Work Simulations**

- **Structured Work Activity Groups (SWAGs)**
  - Washington University Program in OT
  - Feasibility Eval Checklist (FEC) to rate observations and readiness for employment.

- **Progressive Occupational Demand (PODs)**
  - EpicRehab

- SWAGs & FEC free at EpicRehab.com
- PODs videos at YouTube/EpicRehab
Job-Specific Work Simulations

- Screen with SWAG or POD and identify readiness for JA-based work simulation.
- Use work samples provided by employer to populate this work simulation.
- First target is 2-hour scheduled activity.
- Increment hourly to full 8-hour schedule.
- Use FEC and peer-review to rate readiness to RTW.
Executive dysfunction is much more often disabling than functional limitations due to a specific cognitive information-processing component.

Work simulation is the only way to identify and improve executive dysfunction limitations.