Smart Kitchen Project

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Cognitive Functions

WHAT ARE COGNITIVE FUNCTIONS?

PERCEPTION

ATTENTION

EXECUTIVE FUNCTIONS

MEMORY

LANGUAGE

MOTRICITY
Subjective Cognitive Decline?

- Subjective cognitive decline (SCD) is a form of impairment in which more frequent or worsening confusion or memory loss can affect the ability to care for oneself (CDC, 2018).

- Aging, Brain Injuries, Stroke, Parkinson’s Disease, Early Sign of Dementia etc.
To measure cognitive performance using everyday activities as OT

- Executive Function Performance Test
  - Taking Medications
  - Paying Bills
  - Oatmeal Making
  - Using Telephone
### Executive Function Performance Test (EFPT): Form B

**Task: Simple Cooking**

<table>
<thead>
<tr>
<th>INITIATION: beginning the task.</th>
<th>Independent 0</th>
<th>Verbal Guidance 1</th>
<th>Gestural Guidance 2</th>
<th>Verbal Direct Instruction 3</th>
<th>Physical Assistance 4</th>
<th>Do For Participant 5</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon your request to start, participant moves to table to gather tools/materials for making oatmeal.</td>
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**EXECUTION: carrying out the actions of the task through the use of organization, sequencing, and judgment.**

| Organization: arrangement of the tools/materials to complete the task. Participant retrieves the items needed (pan, pot holder, measuring cup, oats, instructions, spoon). |               |                   |                     |                             |                       |                     |       |
| Sequence: execution of steps in appropriate order. Participant performs steps according to the directions. participant measures water, puts water into pan, turn on stove, sets heat according to what is needed, boils water, measures oats, puts oats into boiling water, stirs, turns off stove, uses pot holder to lift hot pan, and pours oats into bowl. Participant does not confuse steps, e.g., turns off stove before water boils, replacing oats in cupboard before measuring some out, but may measure oats before boiling the water or put salt in the water before or as it boils. |               |                   |                     |                             |                       |                     |       |
| Judgment & Safety: avoidance of dangerous situation. Participant prevents or avoids danger, e.g., turns water off, does not lay pot holder near burner, turns burner off, uses pot holder to lift hot pan, etc. |               |                   |                     |                             |                       |                     |       |

**Completion: termination of task.**

| Participant knows he/she is finished, e.g., pours oatmeal into bowl and moves away from pot. If participant washed dishes, he/she moves away from the sink, doesn’t continue to scrape the pan, etc. |               |                   |                     |                             |                       |                     |       |

Task Score ___________ Time ____________
Organization Errors – Object Addition and Omission

Directions:

1. Gather all the items needed from the box and place the items on the counter
2. Boil water and salt on high (Boil Button)
3. Add oats in the boiled water
4. Cook the oatmeal for two minutes by setting the timer over medium heat (Slow Cook Button)
5. Stir occasionally
6. Serve the oatmeal to the tester (to make it obvious that they have a bowl and a spoon, but not explicit!)
7. Put the dirty dishes in the sink

- Object omission: Forgetting a tool(s) or an ingredient(s), Starting without tools they need
- Object addition: Using a distractor or an unnecessary ingredient
Video for Gathering All Items Needed
Must Have Items

- Quick Oatmeal
- Salt container
- Measure cups
- (a glass 1 cup, a stainless 1 cup, a 1/2 stainless cup)
- A big spoon
- A set of measure spoons
- A Bowl
- A Pan
- A Hot pad
- A small spoon
- A timer
ANY QUESTIONS?