Neuropsychological Testing and the Importance of the Interpreter Role

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What is a neuropsychological evaluation?

A neuropsychological evaluation typically involves assessment (testing) with a group of standardized tests that are sensitive to brain dysfunction. Unlike CT or MRI scans that show abnormalities in the structure of the brain, or EEG, that shows electrical abnormalities in the brain, neuropsychological assessment shows ways in which a person can or cannot perform certain functions or tasks that are dependent upon brain functioning.
Who Conducts a Neuropsychological Evaluation?

- Neuropsychologist- Doctoral level clinical psychologists who have completed a two year post-doctoral fellowship in Neuropsychology.

- Psychometrist/Psychometrician – An individual that has received formal training in psychological testing. Some obtain national certification.
What can a neuropsychological evaluation do?

- Make or confirm a diagnosis (ex. dementia, learning disability)
- Record functioning before/after a medical intervention
- Monitor development and/or record changes in functioning over the course of treatment or recovery
- Record/describe functioning to adjust treatments or expectations
The standardized tests used typically assess:

- Attention and memory
- Problem solving and other complex abilities
- Visual-spatial functions
- Sensory perceptual functions
- Motor functions
Standardized Neuropsychological Tests in Other Languages

- Some tests used are available in languages other than English.

- There are limitations when conducting a neuropsychological evaluation with a limited English proficient or Deaf patient.

- The neuropsychologist takes into account cultural differences on both verbal and non-verbal tests.

- The information that can be gained, in most cases, outweighs the decision not to test the patient at all.
Key Points when Interpreting for a Neuropsychological Exam

- The examiner needs to know all that is being said, word for word, even in conversation.

- Because these are STANDARDIZED tests, all of the directions MUST be read word for word (as closely as possible).

- Do not help the patient with the answers or indicate in anyway whether they are right or wrong.

- If you are uncertain about a word used or something else ASK! Communication is key to making the testing as successful as possible.
Key Points Continued

- When possible, come early to review the testing procedure and materials.

- If possible, translate testing materials ahead of time.

- Remember to interpret exactly what is written/said. Scoring is often based on subtle difference in the way answers are worded.

- Limit inflection
Examples of Tests And Challenges
**Verbal Learning Test**

<table>
<thead>
<tr>
<th>English</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>watermelon</td>
<td>sandía (melón, patilla)</td>
</tr>
<tr>
<td>hammer</td>
<td>martillo</td>
</tr>
<tr>
<td>shirt</td>
<td>camisa</td>
</tr>
<tr>
<td>lime</td>
<td>lima</td>
</tr>
<tr>
<td>saw</td>
<td>serrucho</td>
</tr>
<tr>
<td>pants</td>
<td>pantalones</td>
</tr>
</tbody>
</table>

This list is read 4 times at timed intervals and patient is asked to remember as many as they can.

**Challenges**
- Do all words translate exactly, and what to do if not?
- Are there cultural issues with a specific word?
- Same words in the same order must be used throughout as the test is measuring memory.
Story Memory Test

Susan Smith left her apartment to go to the grocery store to buy food for her family. On her way, she tripped and fell and hurt her ankle. A man who was walking behind her stopped to help Susan. He phoned the ambulance and she was taken to the hospital.

**Challenges**

Do all words translate exactly?
Are there cultural differences that may affect the patient’s understanding of the story?
Digit Span Test

Patient is asked to repeat numbers

Forward
4-2
5-7-2
9-4-1-3
8-5-7-2-6

Backward
4-6  6-4
9-3-2  2-3-9
8-1-6-4  4-6-1-8
Vocabulary

Patient is asked to tell the meaning of word

“Tell me the meaning of the word “jump.”

“Tell me the meaning of the word “presumptuous.”

Challenges

- Some words do not translate exactly and this might influence the results, so communication with the examiner is important
- Some higher register words in English may be very common words in other languages and vice versa
Similarities Test

Patient is asked to tell the examiner how two words are alike or the same.

“Tell me how a horse and lion are alike, how are they the same?”

“Tell me how a flower and a beetle are alike, how are they the same?”

Challenges

- This can be a very difficult concept to grasp. It is very important to only say the words given and do not repeat unless instructed to do so.

- Do not refer to type of things – ex. “How are these animals – horse and lion alike, how are they the same? You are identifying them as animals and the question would be invalid."
Important Things to Remember with Verbal Memory Tests

- Always use the same word each time you read the word list, number list, or story.

- Read the words, numbers, or story at a consistent speed and a speed that the patient can understand.

- The examiner needs to hear all words even if not from the list or story.

- With some tests (i.e. digit span, verbal learning) speech should be even with limited inflection.
Visual Organization Test
Naming Test
Picture Vocabulary Test
Neuropsychological Exams and our National Standards of Practice

- This testing is very specialized.
- Medical interpreters interpret all that is said. We do not add, subtract, or give opinion.
- If following national standards, you should interpret as you usually do. No congratulations or facial expressions to indicate correct or incorrect.
- DO NOT GET FRUSTRATED if patient is making many errors. Their correct and incorrect responses are providing the psychologists with important information.
- This is not a place for advocacy – to help patient by repeating, etc. But you can advocate to clarify with the tester if you do not understand something and if the patient asks for clarification. However, because these are standardized tests, the psychometrist may not be able to provide much or any help.
Questions?

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