Critical Appraisal Form-Quantitative Study

Article Citation:

**Study Level of Evidence, What Type of Study?**

Level I: ___RCT
Level II: _X_Cohort trial ___Case-control trial _X_Non-randomized control trial
Level III: ___Case-control ___no pre-post test
Level IV: ___Single case study ___Case series ___No comparison group
Level V: ___Descriptive study ___Narrative review ___Expert opinion

**Purpose of Study:** Is purpose clear? _X_yes ___no

**Describe researchers question/purpose:**
Establish further the validity of the Behavioural Assessment of the Dysececutive Syndrome in a population with Schizophrenia.

**METHODS**

Were there any biases or ethical concerns in the study design?
The mean age of the chronic group was dramatically greater. The control group also had more years of education than the patient groups.

**POPULATION**

Who was the sample, how many subjects?
- Group 1 N= 31 adults diagnosed with chronic Schizophrenia according to DSM-IV criteria. M years in hospital = 16.52.
- Group 2 N=30 adults with inpatient status during acute episode M= 1.8 months stay in hospital
- Group 3 N= 93 typical, healthy controls.

**Inclusion Criteria:**
- Adult outpatients in the chronic stages of schizophrenia (according to DSM IV)
- Adult inpatients acute episodes stages of schizophrenia (according to DSM IV)

**Exclusion Criteria:**
History of neurological disorder, mental retardation, or substance abuse.

**What was the intervention? Frequency, setting?**
The participants were tested individually in a quiet area. The BADS was administered to all 3 groups.

**Relevant outcomes to OT?**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>How measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.) Attention</td>
<td>Neurobehavioral Cognitive Status Exam</td>
</tr>
<tr>
<td>2.) Basic ADL Scale</td>
<td>Routine Task Inventory</td>
</tr>
<tr>
<td>3.) Total BADS Outcome</td>
<td>Behavioural Assessment of the Dysexecutive Syndrome</td>
</tr>
<tr>
<td>4.) Judgment</td>
<td>Neurobehavioral Cognitive Status Exam</td>
</tr>
</tbody>
</table>

**Were the tests valid? Explain**
Yes, the tests were valid because they measured executive functioning differences between individuals with schizophrenia and healthy controls. The tests also differentiated between individuals diagnosed with schizophrenia at different phases of their illness.

**Were the tests reliable? Explain**
The test has been shown to have test-retest stability and inter-rater reliability. The researchers did not provide information on internal consistency of BADS.

**RESULTS, CONCLUSIONS, CLINICAL IMPLICATIONS:**

**What were the findings? Was there Statistically significant change?**
The BADS was shown to be a valid measure of executive functions in participants with schizophrenia. The results pertaining to the BADS profile scores showed a clear direction, from lowest scores of the chronic group, followed by those of the acute group to highest scores of the control group. The BADS is recommended as a clinically useful battery in order to provide an understanding of individual’s strength and deficits in executive functioning that are relevant for the rehabilitation process.

**What did the author conclude?**
The author concluded that the results of the BADS are valid because they measured both executive functions, and also measured the depth of disparity between individuals diagnosed with schizophrenia and the phase of the illness that he or she was in.

**My Brief Summary:**
What I see as study strengths:
Some strengths of the study was the use of evidence based assessments and tools to ensure valid and reliable data. Study attempted to account for as many statistical variables as possible leaving the data more reliable and generalizable with population outside of study. Assessment and testing was done in an environment that was the most comforting to the participant to reduce feelings of anxiety, discomfort, and distraction to avoid skewed data.

What I see as limitations:
Some limitations of the study was the lack of a more diverse population, there were only 61 participants who fell under the inclusion criteria. Another limitation was the difference in age between group 1 (31 adults with chronic schizophrenia) and group 2 (30 people experiencing an acute episode of schizophrenia), the mean age of group 1 was separated by almost 10 years from group 2 causing a possible statistical difference.

How is the study’s findings relevant to OT?
The study’s findings are relevant to OT because it identifies assessment tools that can be used to determine executive functioning, as well as, expected performance patterns for individuals diagnosed with schizophrenia depending on the phase of illness. Also, as mental health is a re-emerging field in OT, assessment tools that are proven to be valid and reliable are an asset to practice.

How do I intend to use these results?
If I choose to work in the field of mental health, I would reference this study in order to better understand what assessments are reliable for executive functions in the population schizophrenia.