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Use of the Multiple Sclerosis Cognitive-Linguistic Checklist and the Brief International Cognitive Assessment for Multiple Sclerosis: Generating Patient Centered Goals

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Introduction:

➢ Persons with Multiple Sclerosis (pwMS) report deficit in cognitive and cognitive-linguistic skills which have a negative impact on daily functioning.

➢ PwMS are referred to outpatient clinics for management of these deficits.

➢ Speech Language Pathologists (SLPs) are responsible for managing these cognitive and cognitive-linguistic concerns in outpatient settings.

➢ There is no one evaluation tool that provides reliable, repeatable information on cognitive status AND allows each pwMS to identify how deficits in cognitive and cognitive-linguistic status may be having a negative impact on the daily function of the pwMS.

Background:

➢ The patient-centered model of care is an interactive treatment model which includes a patient's perspectives and concerns in development of a plan of care[1].

➢ In this model of care, the patient has input into their treatment. PwMS have indicated that they do want individualized care[2].

➢ The Multiple Sclerosis Cognitive- Linguistic Checklist (MSC-LC) is a tool developed by the author in collaboration with pwMS at the Mandell Center to allow patients receiving care at the Center to express instances of deficit in their home or work environment.

➢ But, level of deficit based on patient report alone is subjective, and difficult to quantify in order to measure improvement.

➢ The Brief International Cognitive Assessment for Multiple Sclerosis (BICAMS)[3] provides quick, reliable and objective measurement of deficit.

➢ But, the BICAMS is abstract, and offers no insight into functional deficit the patient may be experiencing.

➢ Utilizing the MSC-LC as a compliment to the BICAMS allows for repeatable objective assessment of level of deficit and repeatable documentation of function in the pwMS' home and work environments.

Case Study:

The patient is a 54 year old female who presented for a second course of skilled treatment upon recommendation from the facility's neuropsychologist. The patient's initial complaints began in 1996, consisting of sudden left side numbness and optic neuritis in the left eye. The patient reports medication history of interferon beta 1a, glatiramer acetate, and natalizumab with the patient currently taking dimethyl fumarate. The patient has stable MRI's and no reported relapse in the past year. The patient was driving at the time of the evaluation, did not smoke, did not drink alcohol, wore glasses, did not report being hard of hearing and had a high school education.

At the time of the first course of skilled treatment the patient was working part time, however, it was taking more than double the numbers of hours to complete the job responsibilities than the patient was being paid for. The patient has since stopped working. The patient states functional concerns of difficulty finding words, difficulty returning to task once distracted, staying organized is challenging and the patient reports not being able to recall what happened the day before.

Decision:
Does the patient have cognitive/cognitive linguistic complaints?
Yes, administer BICAMS

Decision:
Do these scores justify treatment?
Yes, but they offer no insight into how these deficits are impacting *this individual patient.*
Administer MSC-LC

BICAMS

Test	Score	Standard Scores from Test Manuals	BICAMS z-scores controlled for age, gender and education[7]
Symbol Digit Modalities Test (SDMT)[4]	54	53.91 (SD 10.40)	-0.37
California Verbal Learning Test Revised (CVLT-II)[5]	25	50 (SD 10)	-2.40
The Brief Visuospatial Memory Test-Revised (BVMT-R)[6]	12	T score 28 1%	-2.08

Excerpts from the MSC-LC

Decision:
Does the patient identify specific areas of functional deficit?
Yes, write functional goals.

Treatment Goals:

Patient-centered goals are generated that are supported by objective measure of deficit.

1. The patient will repeat 8+ word sentences, presented auditorily, with 80% accuracy in the presence of background noise to restore the patient's ability to concentrate in the presence of background noise at the patient's volunteer job.

2. The patient will state 3 instances where background noise may be eliminated (i.e. turning off a radio) at the patient's volunteer job to allow the patient to concentrate better.

3. The patient will be trained in circumlocution and complete word description tasks to 5 units to restore the patient's ability to communicate needs and wants to family in a prompt and accurate manner.

4. The patient will state 2 instances per treatment session where circumlocution was utilized to communicate with family.

Conclusions:

➢ PwMS are presenting to SLPs with complaints of cognitive and cognitive-linguistic deficit.

➢ Use of the MSC-LC as a companion to the BICAMS is an effective method to objectively identify level of cognitive deficit and subjectively identify the effect those deficits are having on the functioning of the pwMS.

➢ Meaningful and measureable patient-centered goals can be written by a SLP to restore specific function on a **patient by patient basis.**

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