Original Research Paper

Linguistics

ADULT COGNITIVE COMMUNICATION EXAMINATION

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ABSTRACT

Cognition and communication are interrelated. There is no communication without cognition. Cognitive abilities are governed by communicative motives. Communication is the foundation of human interaction. Present study is a case report of an aphasic individual on whom a multi parametric tool (ACCE) was administered. ACCE is a comprehensive tool with 16 parameters developed to test individuals with neuro communication disorders. Scoring is done based on the 16 pointing rating scale used in PICA. 16 components of the protocol would assist in finding out he etiology, characteristics and severity of the disorder, counseling the caretaker, restoring the language function and improve the quality of life. Total score is obtained for each of the subtest in the parameters and they are converted into percentages. Test results would aid in selection of an area for rehabilitation and this test acts as a prognostic indicator. It explains in detail the progress of therapeutic process.

KEYWORDS :

INTRODUCTION:

Cognition and communication are interrelated. There is no communication without cognition. Cognitive abilities are governed by communicative motives. Communication is the foundation for human interaction. Cognition comprises of a large number of mental structures and processes (Craik, 1991). Communication disorders in adults result from underlyimg cognitive deficits due to neurological or organic impairment. difficulties from communicative competence result from impairments in attention, memory, organization, information p[rocessing, problem solving and executive functions (Lennox & Brune,1993). The clinician must be aware of the impact of neurological lesions on language functioning. Typical conditions that may affect language are stroke, traumatic brain injury, neoplasm, infections & degenerative conditions. The neurological insult can be local or generalized. It can encompass one hemisphere or both hemispheres or sub cortical structures mediating language functions. The language sub systems that may be affected are naming, word retrieval, repetition, comprehension, expression & cognition. Assessment is essential to identify whether an individual has a disorder or not, and whether they need therapeutic & related services if they have a disorder. Information obtained during assessment helps to determine the rehabilitative needs of individuals.

Detailed diagnostic test measures the language functions in depth in various domains at various levels. Some may be specified while others are unspecified. The assessment is a must to establish baseline deficits. This would guide in establishing therapeutic strategies as well as monitoring & to establish efficacy of the therapeutic strategies. Selection of a test for assessment means that the clinician has a prior knowledge of the type of deficit that an affected individual has. Literacy and language play a major role in selection of tools for assessment. Neurological conditions that can cause speech and language impairments include: Stroke; blockage of blood supply or bleeding in the brain, Trauma to the brain; usually as a result of an accident, infection or toxic substance, Degenerative diseases; e.g. dementia, Brain tumors.

ACCE is a comprehensive and multi parametric assessment tool developed to test individuals with neuro communication disorders. It can be used to identify any affected constraint in an individual with neuro communication disorders. Sixteen parameters are developed & used for assessment (Orientation, Auditory comprehension, Memory, Expressive language, Naming & Repetition, Reading Comprehension, Written Expression, Cognitive/Executive Functioning, Voice, Oral Peripheral Examination, DDK,MPD, Problem solving, Multiple Meanings, Similarities and Differences & Abstract thinking).

Individuals with neurological lesions usually exhibit at least half of the traits tested above. These symptoms can range from mild to severe & vary in intensity from symptom to symptom. Scoring is done according to 16 point rating used in PICA. Porch Index of communicative abilities(PICA) is a standardized assessment tool designed for a communicative disorders. Within the Indian context, clinicians often use informal assessment protocols in specific languages for diagnosis & management of adult neuro communication disorders due to lack of standardized assessment tool for neuro communication disorders in many Indian languages(Martin, 1977).

Parameters such as Orientation, Auditory comprehension, Memory, Naming, Repetition, Reading comprehension, Written expression, Problem solving, Multiple meanings, Similarities and Differences and abstract thinking whereas parameters such as Expressive language, Cognitive/Executive functioning, Voice, Oral Peripheral Examination, DDK and MPD are scored individually. Total score is obtained for each of subtest in the parameter and they are converted into percentages.

These 16 components of the protocol collectively will-
-Yield to the etiology of the problem.
-Account for the client's complaint.
-lead direction to suggest possible line of management & prognosis of the problem
-Help to design a suitable treatment/management program & monitor progress/outcome.
-Aid in severity of a specific parameter
-For clinical profiling.
-For clinical research.
-would be a pointer in progressive conditions
-Help in guiding family members & communicative partners.

-Help in planning improved quality of life.
-Guide in restoring language functions within the limitation of the neurological damage.

Sixteen point rating scale would help in accurate description of responses obtained for various parameters which would aid in selection of an area for rehabilitation and this test acts as a best prognostic indicator. It also elaborates the progress of the client pre and post therapy. It helps in planning therapeutic goals for a specific disorder.

METHODOLOGY:
A 64year old, right handed male client came to the institution for speech & language evaluation& he exhibited altered mental status and unresponsiveness with right-sided weakness and speech& language disturbances subsequently. MRI of brain revealed Hyperintensity in left frontal temporal parietal cortex involving both white and grey matter suggestive of acute infarct. Communication evaluation was done using ACCE in Telugu version.

RESULTS & DISCUSSION:
From the sixteen parameters of ACCE low scores were obtained for the following parameters. Orientation to person,place and time are moderately affected. Auditory comprehension is mildly affected &case has difficulty in following two and multi step commands and had confusion in identifying objects. Memory was intact during immediate recall but affected during delayed recall. In Expressive language, phonemic and semantic paraphasias, agrammatism were observed. In Reading comprehension client had difficulty in following complex sentences. Letter reversals are observed and words are misspelled through omission and substitution of letters in written expression. In Cognitive/Executive Functioning the monitoring, labiality, tolerance, attention, perseveration and affect are present. Voice: normal pitch, reduced loudness and breathy voice. Oral Peripheral Examination: normal structure and function of articulators. DDK: /p/,/t/: 15 repetitions in 20 seconds; /k/:17 repetitions in 20 seconds. /ptk/: 13 repetitions in 20 seconds MPD: 16 seconds, Problem solving: Moderate difficulty was observed in reasoning tasks. Multiple meanings: delayed responses were present and concrete thinking was moderately affected. Usage of cues resulted in the response. Similarities and differences: Not affected as the client was able to differentiate but the response was delayed. Abstract thinking: this parameter was moderately affected and the client was not able to give the exact meaning.

The results obtained can be used as the basis for planning intervention & can be used as Prognostic indicator.

CONCLUSION:
The purpose of ACCE is to rule out communicative and cognitive profile of a disorder which assesses multiple parameters on a 16 point rating scale and helps in obtaining accurate baseline for a specific disorder, selecting appropriate treatment plan and acts as preeminent prognostic indicator.

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