

DEVELOPMENT AND VALIDATION OF COGNITIVE LINGUISTIC ASSESSMENT PROTOCOL FOR CHILDREN WITH INTELLECTUAL DISABILITY IN TAMIL

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Authors

Kavibharathi M (S26093627), HEYZMA VARTHNI KJ (S26093801)

Institute

National Institute for Empowerment of Persons with Multiple Disabilities

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Area Of Expertise

Language Poster

Introduction

Children with Intellectual Disability (ID) will not only have language deficits but will also have deficits in cognitive abilities which has to assessed and needs to be intervened for better progression in their language and cognitive skills Intellectual Disability (ID) is a neurodevelopmental condition characterized by limitations in intellectual functioning and adaptive behavior, with associated difficulties in conceptual, social, and practical domains (Schalock, R. L., Luckasson, R., & Tassé, M. J. (2021). Intellectual disability: Definition, diagnosis, classification, and systems of supports (12th ed.). Children with ID may demonstrate varying degrees of difficulty in cognitive-linguistic abilities such as attention, memory, categorization, reasoning, problem-solving, auditory comprehension, vocabulary, semantic organization, and receptive and expressive language skills (Oliver, C., Kalsy, S., & Richardson, M. (2017). A review of cognitive impairments in children with intellectual disabilities: Implications for cognitive behavior therapy. Clinical Psychology Review, 54, 1–15.). These cognitive and linguistic difficulties can have a significant impact on their communication, academic learning, social interaction, and participation in everyday activities. Therefore, comprehensive assessment of cognitive-linguistic abilities is essential for identifying the child's strengths and areas of difficulty and for developing individualized intervention goals.

Need For The Study

Existing assessment tools may not adequate for the assessment of linguistic and cognitive abilities of Tamil speaking children with Intellectual Disability (ID). Especially in South India,

there are no available tools to assess cognitive communication abilities in Tamil speaking population. Therefore, there is a need to develop a structured assessment tool. This is assessment protocol is a tailor-made tool which underwent large scale content validation by expertise before administered on children.

Aim & Objectives

The aim of this study is to assess the feasibility and validity of a newly developed Cognitive Linguistic Assessment Protocol for Children with ID in Tamil language . The objectives of the study include (a) the feasibility of the assessment protocol (b) its content validity.

Method

The Cognitive Linguistic Assessment Protocol in Tamil for preschool to school going children was developed in both Visual mode and Auditory mode covering three domains Attention , Memory and Problem Solving comprising of 106 questions in the overall assessment protocol. The Assessment Protocol was developed with reference to CLAP C (2006), CLAP LD (2007), CLAP in Malayalam (2010), Cognitive Linguistic Intervention Program for children at risk for Learning Disability(2018). The Auditory mode in Attention domain contains (Auditory Sustained Attention, Auditory Selective Attention , Auditory Divided Attention) - Visual mode in Attention domain contains (Visual Sustained Attention, Visual Selective Attention , Visual Divided Attention) . The Auditory mode in Memory domain contains (Auditory Sequence Memory , Auditory Reverse Sequence Memory , Auditory Word Recognition) - Visual mode in memory domain contains (Visual Sequential Memory , Visual Short Term Memory). The Auditory mode in Problem Solving domain contains (Predicting the cause , Predicting the outcomes) - Visual mode in Problem Solving domain contains (Mazes , Overlapping , Story Sequencing). An seventeen-member expert panel (speech-language pathologist ,occupational therapist, clinical psychologist) evaluated the items and validation was done based on Item-level (Item content validity index –ICVI) AND domain-level (Scale content validity Index - SCVI) ratings. Once the content validation of the assessment protocol was done by the expert panel and the items were revised based on the reviews , Ten typically developing children (n=10) aged 5 to 10yrs and Ten children diagnosed with Intellectual Disability with language age of 5 to 10yrs were analyzed using the assessment tool.

Result & Discussion

Content Validation of the developed tool was done by obtaining validation ratings from 17 experts. Each item was rated for relevance, clarity, simplicity and ambiguity using a 4-point likert scale. The Item-content validity index (I-CVI) was calculated for each item by dividing the number of experts who rated the item as either 3 or 4 by the total number of experts. The I-CVI values were ranged from 0.8 to 1.00 indicating good to excellent among the experts regarding the relevance, clarity, simplicity and ambiguity of the items .The scale-content validity index for relevance and clarity was 0.95 indicating excellent level of content validity for the tool and simplicity and ambiguity was 0.94 indicating excellent level of content validity for the tool. The administration of assessment protocol on the typically 10

developing children and 10 children with ID successfully identified a distinct asymmetric profile in which significant breakdowns were observed in domains such as attention in visual mode , memory in auditory mode, visual sequence task in memory , and problem solving in visual mode (maze and overlapping task). Overall, the findings indicate that the tool demonstrated satisfactory content validity based on expert ratings.

Summary & Conclusion

The content validity findings of this assessment protocol provide the evidence that this tool demonstrates satisfactory content validity. The obtained I-CVI and S-CVI values indicated that the items were considered relevant, clear, simplified and ambiguous by the expert panel. Overall, the present study provides an initial evidence base supporting the content validity of the developed assessment tool and its potential use in clinical settings.

Reference (optional)

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