

Developing a Validated Assessment for Consonant Production in Children with Cleft Lip and Palate-for Sinhala Spoken Language

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Cleft Lip and Palate (CLP) is the most common congenital craniofacial deformity which occurs in 6- 12 weeks of gestation in embryological development. Cleft lip occurs when there is a failure in the fusion of the parts of the lip. Cleft Palate occurs when there is a failure in the mechanism of the elevation and fusion of the palatal shelves in the mid line of the oral cavity. As a result of abnormal structural issues, the children will develop breathing difficulties, swallowing difficulties and abnormal development in speech production with distorted patterns of manner and place of articulation. Therefore, the children with CLP develop unclear speech introduced as speech with cleft type characteristics. It is essential to assess their speech consonant production by Speech and Language therapists (SLTs). Speech diagnosis is important to find out whether it is correctable by SLT or not. If not, refer them back to other medical professionals to plan further investigations and surgery procedures. There is no validated or applicable consonant assessment for the children with CLP, in Sinhala language. The aim of the study is, to have a validated assessment to identify the nature of speech consonant production in children with CLP considering both place and manner of articulation. The identified research problem is how to develop a standardized or a validated speech consonant production assessment for the children with CLP in Sinhala spoken Language? Considered to methodology, collected all the available cleft speech assessments in Sri Lanka and international assessments and international guidelines for cleft speech assessment. Distributed collected assessment sentences among ten SLTs to select and comment on each with the consideration of the independent variables; Culture specific, Age Appropriateness, Linguistically acceptable according to the universal guidelines for cleft speech assessment, Overall view on cleft speech consonant assessment. The assessment sentences have been altered until could develop an applicable assessment with the reflection of the received comments from SLTs and the collected international assessments, linguistics rules and international guidelines. Assess 50 children with repaired CLP and 50 without CLP. Audio and video recordings were done with parent's consent. Validate the Developed assessment according to assessment of face and content validity and assessment of criterion validity and acceptability to be done. Develop assessments with single word level and simple phrases for the children below five years to be done. Analyzed data by using SPSS windows 21 for reliability test. Found the Cronbach's Alfa value for each consonant. According to the results, the new assessment sentences are created according to the international guidelines and linguistic rules. It is easy to perceive all the cleft type characteristics, nasality in the cleft speech than from the previously used sentences. It has been developed according to the cultural values and age appropriately than the used sentences. The newly developed assessment sentences are fulfilled all the aspects including all the independent and dependent variables and scored Cronbach's Alfa value more than 0.6 or more values than the used sentences.

Keywords: "cleft lip and palate; cleft type characteristics; speech consonants; manner of articulation; place of articulation"

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