



PSYCHOMETRIC VALIDATION OF SPEECH PERCEPTION IN NOISE TEST MATERIAL IN ODIA (SPINTO)

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Abstract

One of the major problems of the hearing impaired population is speech comprehension in noise. There are various tests to assess the speech perception in noise but currently Quick SIN and Hearing in noise test (HINT) are considered as standard measures of speech perception in noise. There is few standardized speech perception in noise tests, which uses sentences, are available in Indian languages but as per our knowledge there is no speech perception in noise test are available in odia language. Since language is an important issue for developing and standardization of a test battery. It has an important influence on the outcomes in test which are linguistically loaded. Therefore it's a need to develop a standardized test in odia to measure the speech perception ability in noise.

To develop this test materials sentence selection was done and familiarity check was done. Then selected sentences were recorded by female talker in presence of multitalker babble using Nuendo software. The recorded material was presented using a CD player routed through an Audiometer. Scoring was done and SNR loss was calculated.

Results showed that the p valued 0.10012 and 0.166326 for normal and hearing impaired group respectively in Two way ANOVA, suggested all 7 lists were equivalent. And the mean SNR-50 was 2.74 dB in normal hearing population and the mean SNR loss for hearing impaired group was 9.09 dB. Test retest reliability also showed higher test retest reliability. Therefore this can be used for evaluation of speech perception in noise in odia population.

KEY WORD- speech perception, hearing impairment, normal hearing, multitalker babble