BINAURAL FUSION TEST IN KANNADA FOR CHILDREN

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Content

Preface

BINAURAL FUSION TEST IN KANNADA FOR CHILDREN by Ms Tammanna Khurana, in part-fulfilment of her Master's dissertation under the guidance of Dr. Vijayalakshmi Basavaraj. The present study aimed at developing a Binaural fusion test in Kannada language and establishing the normative data for the test across the 5 age groups of 7-7.11 years, 8-8.11 years, 9-9.11 years, 10-10.11 years and 11- 11.11 years.

Introduction

Comprehensive evaluation of individuals with CAPD is a challenging task. As CAPD represents a heterogeneous group of auditory deficits, it is important that a test battery approach be used so that different underlying processes, as well as different levels of functioning within the central auditory nervous system can be assessed. There are numerous tests of central auditory processing that have been developed over the years. However, not all of these tests are equal in their ability to identify auditory processing disorders. Therefore, a battery of tests needs to be developed for assessing the different auditory processes. Binaural fusion test has been found to be sensitive tool to identify auditory processing problems in children. It has been used to study subtle auditory processing disorder in children. As it has been reported that binaural fusion test is sensitive in identifying APD in children suspected to have processing problems the need to develop such a test arises.

The test material was developed using a corpora of 360 CVCV words which were taken from age appropriate Kannada textbooks and 50 words which were familiar to all

the children. They were then randomly grouped into 2 phonetically balanced lists, containing 25 words each. List I was picturizable and list II was non picturizable.

The lists were then filtered using a low pass band of 500 to 700 Hz and a high band pass of 1800 to 2000 Hz with the help of Goldwave digital audio editor software and presented at 40 dBSL (with reference to pure tone average) to one hundred children who participated in the study and normative data was collected.

The data obtained was analysed for the presence of age and gender effect. The results showed that there was an improvement in the scores for both List I and List II with an increase in age. This increase in age has been attributed to the neuromaturation that takes place in central auditory nervous system till the age of 11-12 years. The scores for males and females were comparable for both List I and List II, which reflected that there was no gender effect.

Thus, the Binaural Fusion Test in Kannada developed in the study can be used to assess children from 7-12 years of age for the presence of any auditory processing disorder. It can be used clinically as an assessment tool for auditory processing disorder in Kannada speaking children.

Test Material

APPENDIX

LIST I	LIST II
ಗೋಡೆ	ತಗೋ
ಸರ	ಕೋಪ
ಗಿಡ	ದಿನ
ದೋಸೆ	ಕುಡಿ
ಕುರಿ	ತಡಿ
ನೂರು	ರಸ
ಕೋತಿ	ಜಾಣೆ
ಜಡೆ	ದೂರ
ಟೋಪಿ	ಕೆರೆ
ರಾಜ	ಗೂಬೆ
ತುಟಿ	ತೂಕ
ಹಸು	ನೀನು
ಮೇಕೆ	ಸೂಜಿ
ಬಿಳಿ	ಶೀತ
ಚಾಕು	ಹಣ
ಮೂರು	ಮರ
ಮೂಗು	ಮಾತು

ಜನ	ಹಾಡು
ಪಾಪು	ಬಡಿ
ಮೀನು	ಬಿಸಿ
ಸೇಬು	ನೋಡು
ನೀರು	ಸಾರು
ರಜೆ	ಚಾಕು
ಮರಿ	ನಾನು
ಸೊಳ್ಳೆ	ಕಾಸು

APPENDIX B

A SAMPLE OF THE TEST PICTURE PLATE

Rhyming word-

Random word-

Target word-

Word from the same lexical category-

Normative scores

Mean and Standard deviation (S.D) of Binaural fusion test scores for List I & II for males and females across all age groups.

Age (years)	**Gender**	**List I**		**List II**	
		Max. score:25		**Max. score:25**	
		Mean	**SD**	**Mean**	**SD**
7+ to 8	Male	17.70	1.76	18.40	1.07
	Female	18.40	1.42	18.30	1.49
8+ to 9	Male	19.20	1.03	20.10	1.59
	Female	20.20	1.54	19.90	1.44
9+ to 10	Male	20.90	0.73	20.30	0.82
	Female	20.80	1.22	20.50	1.43
10+ to 11	Male	21.40	0.51	21.80	0.42
	Female	21.60	0.51	21.40	0.96
11+ to 12	Male	22.30	0.67	21.80	0.63
	Female	22.70	1.05	22.10	0.56