## Effects of Auditory Brainstem Response (ABR) on Measuring Children's Auditory Functions: An Experimental Investigation

Authors : Sadeq Al Yaari, Nassr Almaflehi, Ayman Al Yaari, Montaha Al Yaari, Aayah Al Yaari, Adham Al Yaari, Sajedah Al Yaari

**Abstract :** Background: Measuring hearing functional capabilities by Auditory Brainstem Responses (ABR) may contribute to better treatment and possible differences in this process may have important clinical implications. Objectives: To measure the validity and reliability of ABR through screening, estimating, and intraoperative monitoring of auditory capabilities of Arab infants and children and the degree of their seriousness. Design: Pre-and-posttest was administered to measure the validity and reliability of ABR. Participants: The subjects of the present study are sixty (60) individuals. The study classified them into two groups: Infants (N=30, ages range between 0-40 weeks) and children (N=30, ages range between 10 months and -3 years) diagnosed with auditory problems. Procedures: The ABR pre- and posttest measurement was administered over two weeks. The outcomes were neuropsycholinguistically and statistically analyzed. Results: The results of the pre-and-posttest for both infants and children did not vary significantly. Also consistent with expectations, higher scores were not registered for the infants' measurements due to age factors. The findings from this study largely indicate that ABR is valid and reliable.

Keywords : auditory, brainstem, response, children, measurement, function, experimental study

**Conference Title :** ICAHA 2024 : International Conference on Audiology and Hearing Aids

Conference Location : Rome, Italy Conference Dates : July 22-23, 2024

1