

Evaluating Factors Affecting Audiologists' Diagnostic Performance in Auditory Brainstem Response Reading: Training and Experience

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Abstract : This study aims to determine if audiologists' experience characteristics in ABR (Auditory Brainstem Response) reading is associated with their performance in interpreting ABR results. Fifteen ABR traces with varying degrees of hearing level were presented twice, making a total of 30. Audiologists were asked to determine the hearing threshold for each of the cases after completing a brief survey regarding their experience and training in ABR administration. Sixty-one audiologists completed all tasks. Correlations between audiologists' performance measures and experience variables suggested significant associations ($p < 0.05$) between training period in ABR testing and audiologists' performance in terms of both sensitivity and accuracy. In addition, the number of years conducting ABR testing correlated with specificity. No other correlations approached significance. While there are relatively few significant correlations between ABR performance and experience, accuracy in ABR reading is associated with audiologists' length of experience and period of training. To improve audiologists' performance in reading ABR results, an emphasis on the importance of training should be raised and standardized levels and period for audiologists training in ABR testing should also be set.

Keywords : ABR, audiology, performance, training, experience

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