

عنوان مقاله:

Conformity of the Real-Ear Aided Response With the Target Response From the Desired Sensation Level V Δ Formula

محل انتشار:

مجله توانبخشی ایرانیان, دوره 20, شماره 1 (سال: 1400)

تعداد صفحات اصل مقاله: 10

نویسندگان:

Ebrahim Pirasteh - *Department of Audiology, School of Rehabilitation, Zahedan University of Medical Sciences, Zahedan, Iran*

Farzad Hamzhepour - *Department of Audiology, School of Rehabilitation, Zahedan University of Medical Sciences, Zahedan, Iran*

Zahra Sharafi - *Department of Audiology, School of Rehabilitation, Zahedan University of Medical Sciences, Zahedan, Iran*

Aghil Absalan - *Department of Audiology, School of Rehabilitation, Zahedan University of Medical Sciences, Zahedan, Iran*

Hamideh Arbabsarjoo - *Department of Audiology, School of Rehabilitation, Zahedan University of Medical Sciences, Zahedan, Iran*

خلاصه مقاله:

Objectives: Real-ear measurements are critical in children for hearing aid fitting. This study aimed to evaluate the conformity of measured and predicted real-ear aided response of prescribed formula of desired sensation level (DSL) version Δ , (Pediatric form) in children aged 4 to 7 years. Since there is limited information about the effect of degrees of hearing loss, ethnicity, gender, and ear on this conformity, the present study investigated the influence of the mentioned factors, too. **Methods:** This study was conducted on 92 children aged 4-7 years (37 girls and 55 boys) with moderate to profound hearing loss. After auditory evaluations, the children's hearing aids were fitted based on the DSL formula. Then, the hearing aid output was measured with a real-ear measurement system, and the difference between predicted and measured curves were compared. **Results:** This study showed a significant difference between the predicted values and the measured ones at three intensity level inputs (50, 65, and 80 dB SPL) and a frequency range of 0.5 to 6 kHz for both ears ($P < 0.05$). However, there was no significant difference between predicted and measured values curves (predicted-measured) regarding the effects of the hearing loss degrees, gender, ethnicity, and ear (right or left) ($P > 0.05$). **Discussion:** According to the difference observed between the predicted and measured curves, especially at the frequencies of 6 and 4 kHz, it is essential to conduct real-ear measurements in children

کلمات کلیدی:

Hearing loss, Real-Ear measurements, Degrees of hearing loss, Gender, Ethnicity

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