

Comparison of aural rehabilitation outcomes in presence and absence of back ground noise in hearing impaired children with and without attention deficit hyperactivity disorder (ADHD)

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Int J Pediatr Otorhinolaryngol. 2018 Nov;114:138-142.
doi: 10.1016/j.ijporl.2018.07.046.

Abstract

OBJECTIVE:

We sought to understand the extend of improvement in seven major skills to determine the best rehabilitation approach in hearing impaired young children with and without attention deficit and hyperactivity disorder (ADHD).

METHODS:

Newsha developmental scale was assessed in 40 hearing impaired children with and without ADHD in two conditions, in which seven major skills (hearing, speech, receptive language, expressive language, cognition, social communication, and motor skills) were evaluated. Two separate analyses were conducted, each after six months of rehabilitation. The first six months rehabilitation was done by controlling background noise level, while the other six months rehabilitation was performed with background multi talker babble noise, and ADHD and non ADHD children performance were compared.

RESULTS:

After the first six months of rehabilitation there were no significant difference in improvement in any of the major skills except for motor and cognition skills between hearing impaired ADHD and non ADHD children. After the second six months of rehabilitation the extend of improvement was equal in both groups.

CONCLUSION:

The equal improvement of hearing impaired ADHD and non- Children with ADHD support the benefits of rehabilitation program in both groups. In addition, it seems background multi talker babble noise can facilitate the process of rehabilitation in ADHD group. As a result, it is important to understand the specific needs of hearing impaired children with ADHD in rehabilitation program to provide the best services and increase the chance for success.