

Evaluation of a clinical auditory profile in hearing-aid candidates - DTU Orbit (08/11/2017)

Evaluation of a clinical auditory profile in hearing-aid candidates

Hearing-impaired (HI) listeners often complain about communicating in the presence of background noise, although audibility may be restored by a hearing-aid (HA). The audiogram typically forms the basis for HA fitting, such that people with similar audiograms are given the same prescription by default. However, this does not necessarily lead to the same HA benefit. This study aimed at identifying clinically relevant tests that may be informative in addition to the audiogram and relate more directly to HA benefit. Twenty-nine HI listeners performed fast tests of loudness perception, spectral and temporal resolution, binaural hearing, speech intelligibility in stationary and fluctuating noise, and a working-memory test. Six weeks after HA fitting they answered the International Outcome Inventory – Hearing Aid evaluation. The HI group was homogeneous based on the audiogram, but only one test was correlated to pure-tone hearing thresholds. Moreover, HI listeners who took the least advantage from fluctuations in background noise in terms of speech intelligibility experienced greater HA benefit. Further analysis of whether specific outcomes are directly related to speech intelligibility in fluctuating noise could be relevant for concrete HA fitting applications.

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