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The effect of hearing augmentation on cognitive assessment scores: A pilot crossover randomized controlled trial (Conference Paper)

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Abstract

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This randomized cross-over pilot study aimed to evaluate the effect of hearing augmentation on cognitive assessment scores and duration to complete cognitive assessment among the elderly in-patients in a teaching hospital. A hearing amplifier was used for hearing augmentation and the Montreal Cognitive Assessment (MoCA) test was used to assess cognition. Seventy one patients were allocated into Group A (n=33) or Group B (n=38) using block randomization. There was no significant difference in total MoCA scores with and without hearing augmentation ($p = 0.622$). There was a significant improvement in the total scores on the second test that suggests a learning effect ($p < 0.05$). There was also no significant difference in time taken to complete cognitive assessment with and without hearing augmentation ($p = 0.879$). Similar statistical tests performed on a subgroup of patients with hearing impairment did not reveal significant results. The results of this study will now inform a larger randomized controlled study evaluating the use of hearing amplifiers as cost-effective solutions to hearing impairment in our older population. © International Federation for Medical and Biological Engineering 2016.

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Aged Cognition Dementia Hearing augmentation Hearing impairment

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