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Dementia and hearing loss

Introduction

Currently, approximately 1.6 million people in Germany suffer from dementia and 20% of 60-69-year-olds show a hearing impairment (HI).

Current situation

Recent studies demonstrate that HI may be relevant in the development of dementia: Livingston et al (2020) report hearing loss in midlife as the most important modifiable risk factor of later dementia.

Problem/Motivation

Therefore, cognitive deficits in hearing-impaired individuals should be detected early. However, cognitive tests usually do not consider the status of HI but presuppose an intact sensorium, thus inadequately detecting people with HI. Consequently, the DiCoDi was developed.

Material & method

The DiCoDi is a 30-minute tablet-based neuropsychological test battery for people with HI and the elderly developed by the University Hospital of Cologne and the Swiss KOJ Hearing Research Center. It consists of seven subtests assessing cognitive deficits, and a self-assessment of cognition and mood. All items are shown visually. The DiCoDi was tested on 174 hearing-impaired and 114 control subjects.

Results

In a pilot project, the DiCoDi was found to be valid and reliable as well as easy to administer and use (feasibility and usability).