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Effectiveness and costs of a low-threshold
hearing screening programme (HörGeist) for
individuals with intellectual disabilities:
Protocol for a screening study

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Feasibility of regular nationwide hearing screenings for people with intellectual disabilities in their living environment

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Objective: People with intellectual disabilities (ID) suffer from hearing loss about 5-10 times more frequently than the general population. In most cases, such hearing disorders remain undiagnosed and are not or insufficiently treated. The implementation of a program consisting of systematic hearing screening, diagnosis as needed, and therapy initiation and monitoring in the living environment of people with ID (residential facilities, workshops, kindergartens, schools) therefore seems to be useful. Here we present whether such a program seems feasible.

Methods: In the HörGeist* project, which investigates the feasibility of the described program, 1050 individuals with ID of all ages received hearing screening and immediate reference diagnostics in their living environment. Failed screening was followed by full audiometric diagnosis and, if hearing loss was confirmed, initiation and monitoring of therapy. A control cohort of 141 participants was invited by their health insurer via their family to undergo the same program, but in a clinic. Both cohorts undergo the program a second time one year later to assess its outcome.

Results: Hearing screenings and diagnostics in the living environment of people with ID were feasible by hearing care professionals in most cases with reliable results, by trained, non-audiological staff only to a limited extent. Telemedical monitoring (video-otoscopy, evaluation of audiological findings and determination of further measurements) by a physician was feasible and necessary in about 20% of cases. Partly under strict COVID-19 pandemic conditions, partly under less strict ones, and also independently, it appeared difficult to gain access to people with ID, especially in schools, daycare centers, and company-integrated workplaces. Of 810 facilities contacted, 19% participated in the HörGeist program, and from initial contact to hearing screening required an average of 8 contacts through emails, flyers, and phone calls. Hearing screenings by invitation in clinics were hardly taken up.

Conclusions: While nationwide hearing screenings, on-site diagnostics, and therapy initiation including hearing aid fitting seem to be feasible in the living environment of people with ID, access to them in their facilities proved to be an unexpectedly large barrier. Education of caregivers about the usefulness of regular hearing screenings for people with ID is needed.

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