Jacoti HEARING WITHOUT BARRIERS

Study Demonstrates Reliable Jacoti Hearing Center Test Results Despite Ambient Noise Challenges in Real-World Settings

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Researchers at Jacoti BV, a pioneer in hearing technology, have unveiled promising findings regarding the reliability of the Jacoti Hearing Center app, particularly in the face of ambient noise challenges. The study, titled "Test-retest reliability of remote home-based audiometry in differing ambient noise conditions," shows how Jacoti Hearing Center revolutionizes remote self-administered hearing assessment.

frontiers

Test-retest reliability of remote home-based audiometry in differing ambient noise conditions

Iordanis Thoidis, Amaury Hazan, Ad Snik, Jonatan Rivilla, Kamil Budzyński, Num Méndez, Jacques Kinsbergen

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Traditionally, audiometric assessments have been conducted in controlled environments, such as soundproof booths, to ensure accurate results. However, with the advent of mobile technology, there has been a growing interest in home-based audiometry, offering greater accessibility and convenience for users worldwide. Yet, concerns have arisen regarding the impact of uncontrolled ambient noise on the reliability of these assessments.

The researchers evaluated the test-retest reliability of the Jacoti Hearing Center smartphone application in various ambient noise environments using real-world data collected from 2015 to 2023. Their analysis included 9,421 test and retest threshold pairs from 1,115 users, focusing on the effects of ambient noise on test-retest reliability and the potential for remote audiometry.

Key findings from the study include:

- Jacoti Hearing Center demonstrated an average absolute difference of 4.7 dB in test-retest thresholds, with a strong positive correlation between test and retest results.
- Pure Tone Average differences remained under 5 dB for all degrees of hearing loss, indicating reliable assessments across different hearing profiles.
- Ambient noise had no clinically significant effects on thresholds between 20 and 75 dB HL, showcasing the robustness of the Jacoti Hearing Center app even in non-ideal acoustic conditions.

- Continuous and precise noise level monitoring and noise-aware control of the testing procedure were identified as crucial factors in ensuring reliable remote audiometry.

Building upon the recent study by Hazan et al. (2022), researchers emphasized that these findings underscore the potential of home-based audiometric testing, offering a viable solution for individuals seeking accessible and reliable hearing assessments. Moreover, the study opens avenues for further improvements in remote-based solutions, paving the way for advancements in over-the-counter (OTC) hearing aids and self-fitting technologies.

In conclusion, this study marks a significant milestone in the field of hearing health technology, demonstrating the feasibility and reliability of Jacoti Hearing Center in real-world settings. As technology continues to evolve, such advancements hold immense promise for improving access to essential hearing care services worldwide.

About Jacoti

Jacoti BV | Hearing Technologies is a science-based company that develops hearing enhancement solutions embeddable in consumer devices. Its flagship product, Jacoti Inside, optimizes audio to each individual hearing requirement from consumer technologies to fully-fledged medical devices. For more information visit www.jacoti.com

Contact our Press Officer for more information or to arrange an interview with our team.
press@jacoti.com