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# Emotional Impacts of Hearing Loss: Analyzing the Role of Hearing Aids, Perceived Severity, and Demographic Factors Through Mobile Crowdsensing Data in Trackyourhearing

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#### **Abstract:**

Hearing loss significantly impacts emotional well-being, often leading to increased stress, irritability, and exhaustion. This study explored the influence of hearing aid usage, perceived hearing loss, demographic factors, and operating system preferences on emotional states using data from 63 participants collected through the TrackYourHearing mobile health platform. The results showed that hearing aid users experienced better emotional well-being, with higher mood and lower stress, irritability, and exhaustion compared to non-users. Strong correlations were found between perceived hearing loss and increased stress and exhaustion, as well as lower mood. Age and sex also played a role, with older individuals and males reporting higher stress and irritability. Additionally, iOS users reported better emotional states than Android users, particularly in terms of irritability and exhaustion. These findings indicate the importance of hearing aids in improving emotional well-being and highlight the role of individual and technological factors in shaping emotional experiences in individuals with hearing loss.

### **Keywords:**

hearing loss, emotional well-being, hearing aids, mobile health (mHealth), TrackYourHearing.