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Research, Communication and Beyond: Unlocking Postgraduate Potential

SOUND COGNITIVE INTERVENTION AMONG ADULT WITH HYPERACUSIS

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Introduction:
Sound-Cognitive Therapy (SCT), which integrates sound exposure with cognitive tasks, has emerged as a promising intervention for hyperacusis. This preliminary study evaluated the effectiveness of SCT in reducing sound sensitivity and improving emotional regulation. **Methods:** The study was conducted in three phases. *(i)* Ten participants were exposed to seven sounds (white noise, pink noise, waterfall, rainfall, air conditioner compressor, ceiling fan, and Qur'anic recitation) while performing Stroop tasks. Otoacoustic emission (OAE) suppression was measured to identify sounds with the greatest effect. *(ii)* Thirty-two participants with hyperacusis symptoms completed the Malay Hyperacusis Questionnaire (HQ-M) and the Difficulties in Emotion Regulation Scale (DERS-18), and correlations between sound sensitivity and emotional regulation were analysed. *(iii)* Fifteen participants underwent six SCT sessions (25–30 minutes each), combining one of the three most suppressive sounds with working memory tasks. Pre- and post-intervention HQ-M and DERS-18 scores were compared. **Results:** *(i)* Pink noise, waterfall, and white noise produced the greatest OAE suppression. *(ii)* A significant positive correlation was found between HQ-M and DERS-18 scores ($r = 0.527$, $p < 0.05$). *(iii)* Following SCT, HQ-M scores were significantly reduced ($p < 0.001$, $d = 0.93$), and DERS-18 scores showed moderate improvement ($p = 0.002$, $d = 0.37$). **Conclusion:** SCT demonstrates potential in alleviating sound sensitivity and enhancing emotional regulation among individuals with hyperacusis. Data collection and analysis are ongoing to further substantiate these preliminary findings.

Keywords: Hyperacusis, sound-cognitive therapy, emotional regulation, HQ-M, DERS-18