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Acoustics of Noise-Adapted & Clear Speech in Individuals with Elevated Depressive Symptoms

References

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provide a resource to establish valid assessment protocols and intervention plans for clinical populations who need speech production enhancement by using CS and NAS enhancement.

Design

Ten participants read 80 meaningful sentences in each of the three following conditions: 1) conversational speech (CO), 2) noise-adapted speech (NAS), and 3) clear speech (CS) (240 sentences in total). Each talker produced all of the sentences in CO first and then

- F0 mean: LD group showed significant differences across the speech style while HD group did not show any significant difference between CO and CS ($p = 1$).
- F0 range: Both two group showed significant differences between CO vs. NAS (LD: $p < .001$, HD: $p = .048$), & CO vs. CS (LD &HD: $p < .001$), but no difference between NAS & CS (LD: $p = .204$, HD: $p = .395$).

Conclusions

Talkers with HD symptoms showed NAS alteration in all acoustic measures and CS modification in speech rate and f0 range, but different to LD talkers, talkers with HD did not show significant CS enhancement in energy in 1-3 kHz and f0 mean. Findings have implications for the potential to aid speech therapy plan for maximizing intelligibility in individuals with speech sound