

A retrospective two-center cohort study of the bidirectional relationship between depression and tinnitus-related distress.

Authors: Cosima F. Lukas, Birgit Mazurek, Petra Brueggemann, Markus Junghöfer, Orlando Guntinas-Lichius & Christian Dobel

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Abstract:

Background

Tinnitus can cause considerable psychological distress among patients, particularly if comorbidities occur. Despite a strong relationship between tinnitus-related distress and depression, the underlying mechanisms represent a long-standing question. By investigating the co-development of tinnitus-related distress and depressiveness throughout therapy, we capture the dynamic interplay of both conditions and uncover underlying common features mediating their link.

Methods

Large datasets from two different day clinics in Germany have been analyzed using a regularization method for predictor selection (analysis 1) and latent growth curve modeling (LCM; analysis 2). Tinnitus-related distress was assessed using the Tinnitus Questionnaire (TQ). All patients have been experiencing chronic subjective tinnitus with a minimum mean severity level of TQ grade 2. Treatment at both day clinics involved tinnitus management according to clinical guidelines with minor idiosyncratic differences. Analysis 1 was performed on a dataset of 500 patients who received the Jena Interdisciplinary Treatment for Tinnitus (JITT) for 5 consecutive days between 2013 and 2017. Analysis 2 was performed on a second dataset, which included 1016 patients treated at the Tinnitus Center of the Charité Universitätsmedizin Berlin for 7 days between 2011 and 2015.

Results

Here, we show a substantial bidirectional relationship

between tinnitus-related distress and depression severity while emphasizing the role of somatic symptoms and perceived stress in the experience and maintenance of tinnitus awareness. The LCM provides adequate model fit (CFI = 0.993, SRMR = 0.016).

Conclusions

Our results indicate enhanced therapy success in depression when tinnitus-related distress is addressed and vice versa. The combined treatment of tinnitus and depression is proposed for future treatment strategies.

Related links:

- Online publication: <https://doi.org/10.1038/s43856-024-00678-6>
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