

## Subjective daily life complaints from individuals reporting Low-Frequency Noise perceptions

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### ABSTRACT

Low-Frequency Noise (LFN) has been associated with various physiological and psychological complaints. While a primary reaction to LFN that has been often investigated is annoyance, further secondary complaints, such as sleep-related problems or concentration difficulties, have also been regularly associated with the perception of LFN. However, insights into those complaints often depend on studies with small sample sizes, specific settings (e.g., occupational setting), specific subgroups (e.g., participants living near a specific noise source), or single unstructured subjective measurements. Considering the substantial effect of such complaints on the daily living of affected individuals, a comprehensive and systematic investigation of the subjective experiences of individuals in the general population reporting LFN perceptions is necessary. This research presents an observational large-scale survey study on a sample of Dutch adults reporting to experience LFN and a comparison group reporting no or only marginal perception of LFN using psychometrically sound and clinically validated self-report questionnaires. The constructs of interest include sleep, fatigue, cognitive functioning, depressive symptoms, daily stress, as well as coping with stressors. The LFN sample reported worse daily functioning on most of the investigated constructs compared to the comparison group. Further, within the LFN sample the main applied coping strategy appears to be active problem-oriented coping while support-seeking coping or avoidance behavior were applied less often. These findings highlight the need for further attention towards the subjective complaints of individuals perceiving LFN and the need for providing support to alleviate experienced symptoms.

Keywords (3-5): Low-Frequency Noise, sleep, cognition, stress, coping