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NOISE SENSITIVE PERSONS ARE MORE LIKELY TO HAVE SLEEP PROBLEMS

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Objectives: Many insomnia patients complain about a disturbance by even minimal sounds from the environment. However, the concept of noise sensitivity is still poorly understood. Noise sensitive people are more affected by a noisy environment, but they do not seem to have an increased auditory sensitivity. Nevertheless noise sensitivity can have a large impact on daily life and in general they seem to have more sleep problems and more psychological problems. In this study noise sensitivity is studied in relation to individual sleep patterns, sleep quality and symptoms of sleep problems. In addition the association between noise sensitivity with personality traits is studied.

Methods: A group of 450 first year students in completed a noise sensitivity questionnaire (NoiSeQ) and a questionnaire for general sensitivity to environmental stimuli. In addition individual sleep patterns were measured with a general sleep questionnaire and subjective sleep quality was assessed with the Dutch Sleep Quality Scale. The Sleep50 scale was used to measure presence of symptoms of sleep problems. Two personality tests were administered: the 5 PVT (neuroticism and extraversion) and the ZBV to measure the tendency for anxiety. A group of low noise sensitive persons (LO) and a group of high sensitive persons (HI) were selected from NoiSeQ scores for the sleep subscale.

Results: More than a third of this student sample (36.5%) judged their chronotype as 'extreme evening types'. This can be explained by the fact that these young students were still adolescents. 14.1% of the subjects had subjective symptoms of insomnia, 12.8% had symptoms of apnea, whereas 9.4% claimed to have parasomnias like sleepwalking or nightmares. The HI group had a longer sleep latency (p<.05) and more symptoms of insomnia (p<.000), PLMD (p<.01) and biological clock disorders (p<.05). In addition subjects with higher noise sensitivity had a higher score on neuroticism (p<.000) and were more inclined to feel anxious (p<.000). Although noise sensitivity was significantly correlated with general sensitivity for environmental stimuli, general sensitivity was not correlated with any of the sleep parameters.

Conclusion: Noise sensitive persons have more sleep problems and are more anxious than persons who are not noise sensitive. This cannot be explained by a general sensitivity to environmental stimuli.

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