

Paranoia is defined as unfounded fear and distrust towards other people whose intentions are perceived as hostile and harmful. Although paranoia is often associated with disorders in a clinical context, such fears are also prevalent in the general population. So far, several factors have been identified as contributing to the emergence of paranoid thoughts, such as drug use, ongoing stress or - more recently - poor sleep quality. Sleep - and its importance in the context of paranoia - although widely investigated, is still full of hypotheses. Our project aims to fill this gap in the knowledge on the psychophysiology of sleep, i.e. its subjective and objective aspects, in healthy individuals who experience many intensive paranoia-like thoughts (n = 65). We will compare these results with the control group, which will consist of people who usually do not experience such thoughts (n = 65). We will examine whether sleep parameters differ between these groups and whether particular sleep characteristics will be associated with higher levels of paranoid thoughts and whether emotional states such as negative emotions or worries will play a role in this context.

Our project involves a 10-day longitudinal study in completely natural environments of the study participants (e.g. home). We will use an innovative Experience Sampling Method (ESM), which allows to collect data in the natural settings over a long period of time. Participants will be asked to answer questions about paranoid thoughts, emotional states and the use of various substances that can disturb sleep, several times a day for 10 consecutive days using their smartphones. At the same time, with the help of a novel EEG sleep headband, we will monitor the sleep physiology of the subjects. The combination of these two methods, which allow us to obtain a variety of data for 10 days, will provide us with a comprehensive and accurate picture of the actual functioning of the participants.

This is the first study focused strictly on brain activity during sleep in people with non-clinical paranoia. The information obtained will be of great informative value and will enrich the scientific literature in this field. It will also enable early interventions that target specific sleep parameters directly, which may contribute to reducing paranoid thoughts in the future.