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Sleep abnormalities in different clinical stages of psychosis

Sleep abnormalities are commonly observed in individuals with schizophrenia and related psychotic disorders. Research shows that over half of people with these conditions have trouble sleeping. Poor sleep also often contributes to the development and worsening of psychotic symptoms like hallucinations and delusions. Scientists have studied the relationships between sleep and psychosis, including how many psychotic patients have sleep problems and what kinds of sleep disturbances are most common in these patients. However, no study has compared sleep issues across different stages of psychosis to see when sleep disturbances first arise and how they change over time.

In this article, we reviewed all published research on sleep abnormalities in people at high risk for psychosis, those experiencing their first episode/early-course psychosis, and those with chronic, long-term psychosis and schizophrenia. The goal was to clarify when sleep problems start and how sleep abnormalities may differ in early versus later stages of psychotic disorders. In total, data from 59 studies including over 6500 patients were analyzed.

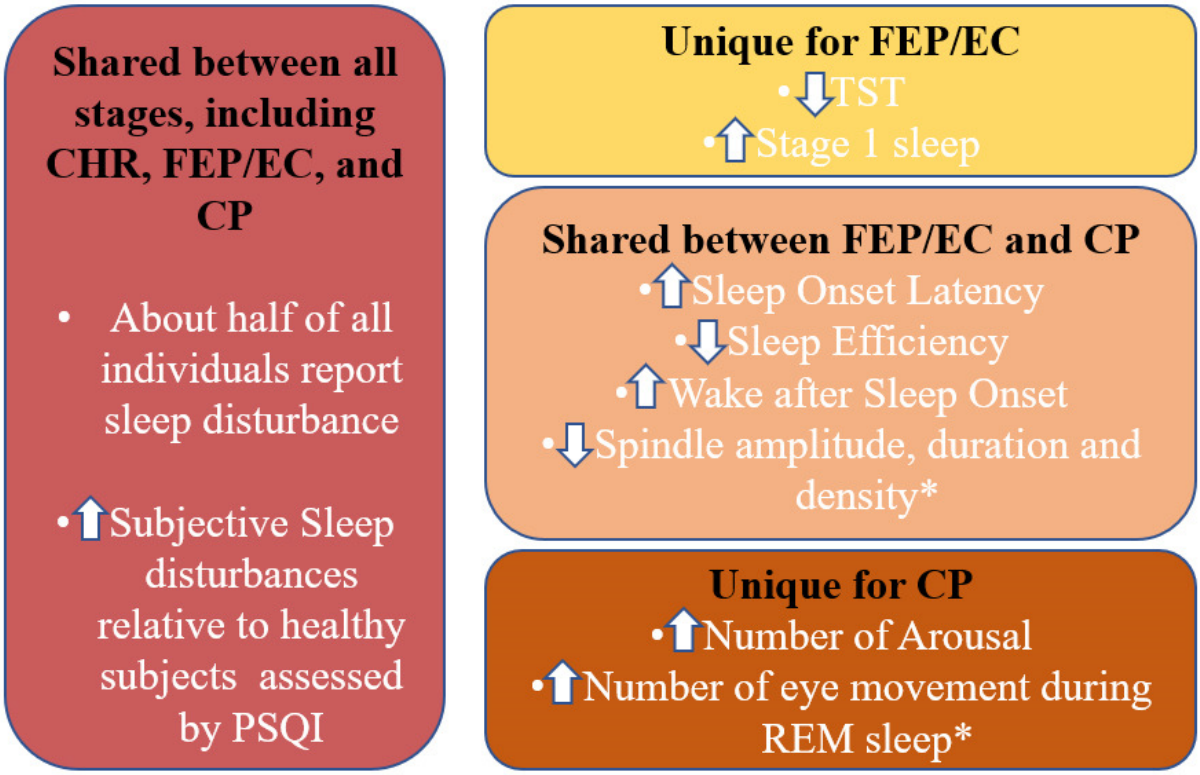

Fig. 1. Unique and shared sleep abnormalities in different stages of psychosis. CHR: Clinical High Risk for Psychosis; FEP/EC: First Episode/Early course Psychosis; CP: Chronic Psychosis; PSQI: Pittsburgh Sleep Quality Index. *Not enough studies to meta-analyze in CHR.

The results showed that about half of the patients across the different psychosis stages reported significant sleep disturbances (Fig. 1). Sleep problems were just as common in people at risk for psychosis as in those with chronic schizophrenia. However, when sleep was measured objectively with equipment, rather than just by asking patients about sleep issues, some differences did emerge. Individuals at clinical high risk for psychosis showed no significant alterations in sleep parameters compared to control groups, although that could partially be explained by having fewer studies on those individuals. People with first episode/early psychosis had trouble falling asleep and staying asleep, and slept more lightly overnight, and total sleep duration was reduced in those patients compared to control subjects. Similarly, people with chronic psychosis and schizophrenia had problems initiating and maintaining sleep, but they also had more eye movements during REM sleep compared to early course patients (Fig. 1).

During sleep, our brain generates sleep-specific oscillations, like spindles, which are brief bursts of activity that are important for memory and learning. Both early course and chronic patients had reduced spindles compared to control groups (Fig. 1). However, spindle abnormalities were even more severe in those with chronic psychosis compared to first episode/early course patients.

Together, these findings indicate that sleep should be assessed and treated early on in individuals at risk for, or diagnosed with, psychosis; sleep disturbances should also be continuously monitored as a core feature of psychotic disorders. Understanding shared and unique sleep abnormalities across the different stages of psychosis will help guide personalized, more effective treatment interventions targeting sleep in individuals affected by those disorders. Improving sleep may in turn benefit clinical symptoms and functioning in people across the psychosis spectrum.

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