during pregnancy. It affects the development of the fetus. The damage can range from mild to severe, from neurological brain damage to physical (facial) and developmental changes. An unusually high rate of abnormal melatonin secretion is observed in this population (Goril et al, 2016). The objective of this study was to investigate the sleep issues faced by FASD children and their care givers.

Subjective sleep problems are experienced by 58% of individuals with FASD (Goril et al., 2016). The main sleep issues include for example insomnia (16.8%) and parasomnia (27.9%). In addition there is an abnormal melatonin secretion in 79% of the population(Goril et al, 2016). Poor or insufficient sleep has far-reaching negative impacts on health, cognitive and psychological functioning, behavior and quality of life in children and youth (Baldassari et al., 2008). These negative impacts are then projected on to the families and their sleep. Very recently an Italian group Dylag et al (2021) have emphasized that sleep problems are important in FASD.

Thirty patients with a FASD diagnosis were consulted (Aged 4-21). They or a caregiver were asked to fill out a FASD sleep impact questionnaire, devised for the purpose of this study. It consists of 6 standard questionnaires such as the family assessment device, child's sleep habits questionnaire (CSHQ) and more. In order to gain better insight into their diagnoses and family background, patients/caregivers were also asked their child's age, when they were diagnosed with FASD, their relationship to the child, the living arrangement (biological family, adoptive, foster, guardianship or other) and age and sex of child.

The impact poor sleep has on a family with FASD children was substantial. The caregivers are suffering from PTSD, depression and poor sleep caused by the sleep problems of their children. Most children with FASD have abnormal melatonin secretions causing further problems in initiating for sound sleep, requiring dosed melatonin supplementation. During the assessment, families were asked to rate on a scale from 0-100, zero being no routine and 100 being in a regimented routine. The implication is that the higher the level of regimentation, the smoother the family functioned on a daily basis. Spontaneity is something these families can not cope with nor tolerate due to the lack of good sleep by the child and caregiver.

The clinical observation of the impact of sleep problems in children with FASD on their family as a whole is monumental. The ramifications are an inter-generational affect from a single diagnoses of FASD. Unfortunately there has been relatively little research on this subject. To the best of our knowledge this is the first study looking at the ramification of the sleep problems in this population and family function. The results indicate an urgent need to help children with FASD to optimise their sleep. This should be seen as a "bed rock" for improving the patient and families quality of life.

WHY WE MIGHT NEED PSYCHIATRIC DAY WARDS MORE THAN WE THINK? SLEEP PROBLEMS IN PATIENTS WITH SEVERE MENTAL DISORDERS

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Introduction: Individuals suffering from schizophrenia often report numerous sleep disturbances, which persist even during the period of remission and significantly hinder patients' daily activities and their quality of life. One of such is sleep-wake pattern disturbances. This poster aims to present and compare two clinical cases of patients with schizophrenia. Both of them reported ongoing sleep-wake cycle disturbances that negatively affected their mood and energy level, as well as their ability to attend daily activities.

Materials and Methods: Patient 1 was a male, aged 33, who initially reported insomnia. Patient 2 was a male, aged 40, who reported a delayed sleep phase. Patient 1 was treated in ambulatory care, while patient 2 was examined during the first month of therapy in a psychiatric day ward. Both patients voluntarily took part in an ongoing project aiming to assess sleep disturbances in patients with schizophrenia.

We used actigraphy as an objective tool to analyze the sleep-wake cycle, alongside sleep diaries filled in by the patients. Both patients were assessed for schizophrenia and depressive symptoms with the Positive and Negative Syndrome Scale (PANSS) and the Calgary Depression Scale for Schizophrenia (CDSS). They also completed self-report questionnaires related to sleep and daytime functioning such as Insomnia Severity Index (ISI),Ford Insomnia Response to Stress Test (FIRST), Sleep Preoccupation Scale (SPS), Dysfunctional Beliefs and Attitudes about Sleep (DBAS-16) and Sleep Hygiene Questionnaire. Additionally, the WHOQOL-BREF questionnaire was used to measure the patients' perceived life quality.

Results: The actigraphy revealed a non-24-hour sleep-wake disorder in Patient 1 and only modest irregularities in the sleep-wake pattern in Patient 2. Interestingly Patient 1 scored slightly higher on Sleep Hygiene Questionnaire.

However, he exhibited more insomnia symptoms, showed greater vulnerability to sleep disruption, and more negative daytime cognitions and feelings about sleep. Patient 1 also showed lower results in the psychological health domain of quality of life.

Conclusions: Both patients reported poor sleep quality, obtained scores that are indicative of maladaptive attitudes and beliefs about sleep. Therefore, in both cases, treatment programs targeting these maladaptive cognitive processes may be valuable. At this point, it would be a far-reaching conclusion that attending psychiatric day wards, by itself, may positively impact the circadian rhythms of people with schizophrenia. However, psychiatric day wards can become a place where there is more time and effort dedicated to sleep health interventions.

REM Behavior Disorders

ALTERATIONS OF THE HUMAN K-COMPLEXES DURING NREM SLEEP IN ISOLATED REM SLEEP BEHAVIOUR DISORDER

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Introduction: REM sleep Behavior Disorder (RBD) represents a strong prodromal marker of α-synucleinopathies. Albeit recent findings underlined the importance of NREM sleep in protecting the aging brain from neurodegeneration, only few studies assessed NREM sleep alterations in RBD and their possible role in cognitive decline. The human K-complex (KC) during NREM sleep exhibits alterations in patients with Alzheimer's disease, and a recent study highlighted a relation between KC density and cognitive functioning in isolated RBD (iRBD), particularly in specific domains known to be relevant in predicting conversion into neurodegenerative disorders. The aim of the present study was to assess for the first time the existence of KC alterations in iRBD compared to healthy controls (HC).

Materials and Methods: we assessed KC density in 31 patients with iRBD (27 M; age: 68.64±6.67 y) and 31 HC (23 M; age: 69.03±6.12 y). In both groups, KCs were detected during Stage 2 NREM sleep in frontal (F3, F4), central (C3, C4, Cz), and parietal (P3, P4) derivations. We performed a direct comparison of the KC density between iRBD and HC. Moreover, we assessed the correlation between midline central KC density, Mini-Mental State Examination (MMSE) scores (in the whole iRBD+HC sample) and performance in specific neuropsychological measures (in the iRBD group).

Results: iRBD patients exhibited a drastic reduction of KC density compared to HC in frontal, central, and parietal derivations. The midline central KC density in the whole sample was positively associated with MMSE scores. Finally, the midline central KC density in the iRBD group was also selectively and positively associated with performance in attention and executive functions (i.e., attentional matrices; Raven Colored Progressive Matrices).

Conclusions: our results describe for the first time a clear reduction of the KC density in iRBD patients compared to HC. Moreover, we confirmed the relation between KC density and cognitive functioning, particularly in specific domains considered relevant for the prediction of conversion into α-synucleinopathies. These findings highlight the need of a further understanding of NREM sleep alterations (and particularly KC features) in iRBD, and their possible role in neurodegenerative processes.

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