A MODEL FOR CITY-WIDE IMPLEMENTATION OF SLEEP AND CIRCADIAN RHYTHM DISTURBANCES AND RELAPSE IN SCHIZOPHRENIA: A DIGITAL PHENOTYPING STUDY

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Introduction Disturbances in sleep and circadian rhythm (SCR) are frequently reported prior to and during episodes of relapse in schizophrenia, and may serve as an early marker of deterioration. However, this has never been demonstrated objectively. Novel approaches using mobile technologies are enabling the longitudinal sampling of sleep-circadian rhythms in the real-world. In this preliminary descriptive analysis, we asked whether SCR disruption captured by a remote-monitoring system accompanies symptomatic deterioration in schizophrenia.

Methods The Sleepsight study gathered light, geolocation, phone interaction and physical activity parameters from wearable and smartphone sensor-streams, passively, continuously, remotely and in real-time over 12 months, in 36 individuals with schizophrenia. Fluctuations in clinical status were also sampled via a daily smartphone sleep and symptom diary, and relapse events were determined through clinical record review.

Results 15 episodes of relapse were identified over the study period, in 12 individuals. Reduction in mean sleep duration was observed to accompany deterioration in 10 episodes, and preceded the onset of significant disturbance of mental state in six of these cases. The longitudinal mean sleep duration for one participant who experienced three relapse episodes over the study period is illustrated in figure 1. Markedly disrupted circadian rhythms including free-running rhythms and relative coordination with weak entrainment were observed in three participants, and were associated with poorer outcomes.

Discussion Sleep and circadian rhythm disturbances commonly accompany relapse in schizophrenia, and emerges prior to deterioration in over half of cases. Sleep-circadian rhythm disturbances are frequently reported as an enrichment criterion in recruitment for schizophrenia clinical trials and for clinical care. This study supports a novel approach to monitoring and prediction of relapse and early intervention with apps and wearable devices.
dysregulation may therefore be implicated in the pathophysiology of relapse, and serve as a predictive marker of impending deterioration.

**P030**

**EXPLORING ONLINE FORUMS TO UNDERSTAND PARENTS’ AND FAMILIES’ VIEWS ABOUT SOURCES OF SUPPORT AND RESOURCES FOR MANAGING CHILDREN’S SLEEP PROBLEMS IN THE COMMUNITY AND PRIMARY CARE**

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Introduction Behavioural insomnia (BI) is the commonest sleep disorder in children (Hill, 2011) and primary care provides opportunity to prevent or address sleep problems early. However, limited research in this area suggests that it is not often discussed in consultations (Honaker and Meltzer, 2016). Parents or carers of children with sleep problems access the internet, for information regarding children’s sleep problems (Hatton and Gardani, 2018). To date, there is no published research into online discussion forums exploring parent’s perceptions of the management of children’s sleep in primary care.

This qualitative study aims to explore:

1. What parents express in online forums regarding their concerns and expectations about children’s sleep problems.
2. What resources parents are aware of either online, in the community and through primary care to help them manage children’s sleep problems.
3. How parents and families perceive that their children’s sleep problems are currently addressed during GP consultations in Primary Care.

Methods A qualitative analysis of public posts about children’s sleep problems in primary care or the community, posted by parents/carers in online discussion forums. Searches will be conducted in three active online discussion forums using terms such as ‘sleep’, ‘doctor’ and ‘health visitor’. Data will be collected by viewing and downloading the first 300 relevant discussion threads and analysed based on inductive thematic analysis in Nvivo, by reading and rereading the data, by creating and revising a coding schedule and by refining the emerging themes and subthemes.

Results Data collection is on-going. Results will be presented at the conference.

**Discussion** This study will provide a valuable insight into parents’ and carers’ perceptions of the available support for children’s sleep problems in primary care and the community. This will help direct future research, to address areas for improvement and develop suitable support tools for Primary Care providers and families.

**P031**

**MANAGEMENT OF PAEDIATRIC SLEEP PROBLEMS IN PRIMARY CARE: A SYSTEMATIC REVIEW**

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Introduction Sufficient sleep is important for healthy child development. 1 Behavioural Insomnia (BI) is common 1 and can be treated with behavioural and sleep hygiene interventions. 2 3 As a first point of contact for families, primary care offers opportunities to prevent or identify and address sleep problems at an early stage. A US review 4 suggested that professionals lack training and sleep is rarely discussed. Our review further explores primary care