of Human Occupation focus on how to motivate, structure and perform one's occupation to achieve balance. The occupation-based sleep program focuses on strategies to maximize occupational balance through lifestyle coaching to promote patterning of occupation into routine and lifestyle. This study aims to evaluate the effectiveness of the occupation-based sleep program on sleep pattern, mood and occupational balance among community dwelling adults presents with insomnia. This study is a quasi-experimental design which compares therapy outcomes at pre, post and follow up, between intervention group and treatment-as-usual group. A total of 35 clients were recruited with 20 from intervention group and 15 from treatment-as-usual group. There is no significant difference on baseline characteristic between groups. When compared with treatment-as-usual group, there's significant improvement on sleep efficiency at post intervention. In addition, intervention group had significant improvement in insomnia severity, sleep efficiency, occupational balance and mood at follow up. In summary, occupation-based sleep interventions aim to 1) minimize influence of bodily function on sleep; 2) promote environment conducive to sleep; and 3) restructure activity with a focus on occupational balance. Further development of sleep management from an occupational therapy perspective will strengthen the role of sleep within clinical practice, education, and research domains.

P028 A MODEL FOR CITY-WIDE IMPLEMENTATION OF INTENSIVE BEHAVIOURAL INTERVENTION TO IMPROVE SLEEP IN VULNERABLE CHILDREN

¹Vicki Dawson*, ²Janine Reynolds, ²Ruth Kingshott, ³Candi Lawson, ³Lorraine Hall. ¹The Children's Sleep Charity, Doncaster, UK; ²Sheffield Children's NHS Foundation Trust, Sheffield, UK; ³Sheffield City Council, Sheffield, UK

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Introduction A lack of adequate sleep has a large impact on emotional and physical wellbeing, especially in vulnerable children and young people. A partnership involving a Children's Trust, City Council and a Sleep Charity evaluated a behavioural sleep intervention in vulnerable children. Support and education were provided to parent/carers and young people to improve sleep patterns.

Methods The intervention entailed basic sleep education, a one-to-one session with a sleep practitioner to create an individualised sleep programme and ongoing telephone support. NHS ethics 16/YH/0490.

Results 39 children participated, median age 8.56 years (1.82–15.75 years; 79.5% male). 75% had a diagnosis of ADHD or were awaiting assessment, 25% were Looked After or Adopted Children (of whom 10% also had ADHD). Parents' ratings of their child's ability to self-settle to sleep improved from 1.13/10–6.73/10 following intervention (MD 5.62, 95%CI 4.56–6.69, $p<0.05$). Children gained an average extra 2.4 hours sleep a night. The average sleep hours were 6.27 hours at baseline and 8.62 following intervention (MD 2.35, 95%CI 1.64–3.06, $p<0.05$). There was a statistically significant improvement in time taken to settle, time to fall asleep, number and duration of night-waking's.

The impact of sleep deprivation on the parents' wellbeing improved for all measures. The overall WEMWBS score improved significantly following the intervention (MD 8.84, 95%CI 5.32–12.36, $p<0.05$). There was a reduction in the number of illnesses in both parent/carers and children following the intervention. Although some parents did not find the programme helpful, 100% said they would recommend it to others. 'Regular telephone calls and support' and 'Learning about sleep' were the main positive factors.

Discussion The success of the evaluation gave us confidence in the sleep delivery model. We have established a strategic group to support local implementation and produced a draft delivery model which we believe is replicable for other areas.

P029 SLEEP AND CIRCADIAN RHYTHM DISTURBANCES AND RELAPSE IN SCHIZOPHRENIA: A DIGITAL PHENOTYPING STUDY

¹Nicholas Meyer*, ²Dan W Joyce, ³Chirs Karr, ⁴Vincent van Hees, ⁵Maarten de Vos, ⁶Derk-Jan Dijk, ¹James MacCabe. ¹Department of Psychosis Studies, Institute of Psychiatry, Psychology and Neuroscience, King's College London, UK; ²Department of Psychiatry, University of Oxford, UK; ³Audacious Technologies, Chicago, USA; ⁴Human Movement Data Consulting, Almere, UK; ⁵Institute of Biomedical Engineering, University of Oxford, UK; ⁶Surrey Sleep Research Centre, University of Surrey, UK

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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

Figure 1. Meyer N et al.

Abstract P029 Figure 1

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

¹Samantha Hornsey*, ^{1,2}Catherine Hill, ¹Ingrid Muller, ¹Beth Stuart, ¹Hazel Everitt.
¹University of Southampton, Southampton, UK; ²University Hospital Southampton NHS Foundation Trust, Southampton, UK

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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

¹Samantha Hornsey*, ^{1,2}Catherine Hill, ¹Beth Stuart, ¹Ingrid Muller, ¹Hazel Everitt.
¹University of Southampton, Southampton, UK; ²University Hospital Southampton NHS Foundation Trust, Southampton, UK

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Introduction Sufficient sleep is important for healthy child development.¹ Behavioural Insomnia (BI) is common¹ 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 review⁴ suggested that professionals lack training and sleep is rarely discussed. Our review further explores primary care