p=0.02). A similar proportion of Black compared to White women had OSA (33% vs. 31%). Although severity of OSA was non-significantly elevated in Blacks (AHI 9.2 vs 6.3, p=0.07), minimum oxygen saturation was significantly lower in Black women (89% vs 91%, p=0.04) and the oxygen desaturation index was higher in Blacks compared to Whites (4.9 vs 2.5, p=0.03) after accounting for differences in demographics.

**Discussion** The incidence of OSA in pregnancy was high with approximately one-third of all women having OSA. Nonetheless, despite being younger and earlier in gestation, Black women had greater severity of oxygen desaturation compared to Whites; this is likely attributed to the higher BMI observed in Black women. These findings have implications for OSA screening in pregnancy.

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### CHILDHOOD NARCOLEPSY AND AUTISM SPECTRUM DISORDER: A RETROSPECTIVE CASE NOTES REVIEW OF CLINICAL CHARACTERISTICS

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**Background** Autism spectrum disorder (ASD) is often seen alongside narcolepsy in childhood; however, little is known about the potential link between the two. Our objective was to identify any similarities or differences between children with narcolepsy who also have ASD and those who do not.

**Methods** A single-centre retrospective records review was undertaken of all children attending narcolepsy clinics as of 1st of August 2021. Data collected included: date and method of narcolepsy diagnosis, severity of narcolepsy at diagnosis, Revised Children's Anxiety and Depressions Scale (RCADS) scores from parent and child, presence of autistic traits, date of ASD diagnosis and support received by the child's family.

**Results** Data was collected from 83 sets of patient records. of this sample, 75 (90.4%) had a confirmed diagnosis of narcolepsy, further analysis was conducted on this group only. A total of 21 (28.0%) children were recorded to have autistic traits, 9 (12.0%) had a confirmed diagnosis of ASD; 88% of ASD diagnoses were made before investigation for narcolepsy. Children with and without ASD had similar SOL and REMSOP results on MSLT. When collecting RCADS data, 55.6% of questionnaires from children with ASD were incomplete for both parent and child, compared to 29.6% of questionnaires from cases without, there was greater discrepancy between parent and child scores in the ASD group and higher parent-rated anxiety scores. Children with ASD were also more likely to receive enhanced school support.

**Discussion** Descriptive analysis of this sample has shown that 40% of children with narcolepsy also have and ASD diagnosis or autistic traits. These children were more likely to be rated as anxious by their parents and went on to require enhanced support throughout school. This may suggest that ASD is could act as a clinical indicator to offer enhanced support where possible.

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### EXPLORING PATTERNS OF BEDTIME BEHAVIOUR IN A COHORT OF CHILDREN WITH SEVERE BEHAVIOURAL INSOMNIA

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**Introduction** A child's activities during the hour before bedtime forms the basis of the assessment for behavioural change interventions for children's insomnia. The aim of this observational study was to identify patterns of behaviour around bedtime in a cohort of children with severe sleep difficulties and to explore deviations in behaviour from The Sleep Charity's standard bedtime routine advice.

**Methods** Data were collected by research staff using a questionnaire during a baseline face-to-face visit to the child's home prior to sleep practitioner support as part of the Sheffield Children's Sleeping Well study. Children were aged 2-17 years with a diagnosis of ADHD or were identified as a looked-after child. Data was input into NVivo where it was coded to identify common or recurring keywords or phrases in the responses.

**Results** 51 parents were interviewed. Table 1 presents the coded responses to questions relating to sleep behaviours. For 32 children, bedtime routines lasted 30 mins-2 hours; 17 had no routine. Only 13 children were reported to have actively had technology removed within the hour before bedtime. 32 had no planned snack. of the 17 that did, snacks were usually cereal, toast, biscuit, warm milk although some snacks

**Abstract 44 Table 1** Coded responses to questions relating to sleep behaviours

| Synthesis of Coding | Number of responses (N=51)* |
|---|---|
| **Where does child sleep?** | |
| In own bed (in own room) | 39 |
| In own bed (shared room) | 9 |
| In own bed (in parent/caregiver bedroom) | 2 |
| Bunk bed (shared with parent) | 1 |
| | |
| **Describe your child's bedroom** | |
| Blackout blinds curtains: | |
| Yes | 39 |
| No | 13 |
| | |
| Has electronics in bedroom: | |
| Yes | 40 |
| No | 7 |
| | |
| Used as playroom: | |
| Yes | 30 |
| No | 18 |
| | |
| **Does your routine involve a wash or bath?** | |
| Bath (finds relaxing) | 5 |
| Bath (finds stimulating) | 17 |
| Shower | 5 |
| Yes (reluctant) | 13 |
| Yes (whether a bath or shower depends on mood) | 2 |
| No | 2 |
| | |
| **Sleep related fears** | |
| Scared of dark | 8 |
| Previously had fears, does not at present | 1 |
| Anxiety re school | 1 |
| Bad dreams | 11 |
| Fear of something present in bedroom | 8 |
| Feels unwell at bedtime | 1 |
| Inability to relax | 3 |
| No fears | 20 |

*Participants responses, in most cases, had multiple codes applied to them so *N* is not consistent with the response numbers. Further, some participants did not answer all questions.

included chocolate, hot chocolate, crisps, burger and chips. Only 10 children engaged in calming activities in the hour before bedtime such as reading, colouring, lego and crafts. 28 children were left to self-settle and 22 had a parent laying or sitting next to them in their bedroom in order to fall asleep.

**Conclusion** There was marked variation from the recommended bedtime routine in children with severe behavioural sleep difficulties, accepting that in some, socially desirable responses may have been given to the research staff during the assessment. Further work to explore the important factors in helping a child to self-settle is ongoing.

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| 46 | THE SLEEP, CIRCADIAN RHYTHMS AND MENTAL HEALTH IN SCHOOLS (SCRAMS) FEASIBILITY STUDY |

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**Introduction** Adolescence is a key developmental period for the onset of mental illness. Healthy rhythms of sleep and activity are critical for mental wellbeing in young people. Yet getting healthy diurnal rhythms becomes challenging for teens, due to developmental changes and multiple social and technological factors modifiable risk factor. We addressed this relationship in a feasibility study by investigating sleep-wake patterns of teenagers and their mental health, wellbeing, and cognitive performance.

**Methods** 9 schools of the SHINE network in Scotland took part in the study. Pupils wore an actigraph for 3 weeks, allowing the collection of objective rest-activity data. During the 3 weeks, they filled in -twice a day- a brief ecological momentary assessment with mood questions on their mobile phone (EMAapp). At the beginning and at the end of this period, participants also completed a digital online survey with further questions about mental health, sleep, and well-being (pre- and post- questionnaire) and they performed a cognitive assessment (6 subtests) on the online platform Test-MyBrain (TMB).

**Results** The feasibility study included two data acquisitions. In Winter (Feb-March 2021), during the lockdown, 8 schools took part for a total of 60 students, whereas, in Summer (May-June 2021), 3 schools took part for a total of 15 students.

Preliminary feasibility results are summarised in the table 1 below.

**Discussion** Overall, relatively good participation, especially during the lockdown. Compliance decreased from the pre- to the post- questionnaire session and within TMB itself. Only 2 people fully completed the study. 11% of the pupils had problem with the EMA app, as reflected in the average low entries. Regarding the actigraph, it was generally well tolerated (a few pupils complained having a rash at the end). Further actigraphy analyses are ongoing.

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| 47 | IS SUBJECTIVE SLEEP CONTINUITY ASSOCIATED WITH FLUID INTELLIGENCE? |

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**Introduction** Previous research has indicated that poor subjective sleep quality is associated with lower fluid intelligence scores (Smith et al., 2019). However, it is not known whether subjective sleep continuity is associated with fluid intelligence, or with set-shifting or mental rotation accuracy, since these are closely related to fluid intelligence (Kafadar et al., 2016; Varriale et al., 2018). The aim of the study was to investigate the relationship between sleep continuity, assessed using daily subjective sleep diaries and fluid intelligence. It was hypothesised that sleep continuity would be positively associated with 1) fluid intelligence, 2) mental rotation and 3) set-shifting.

**Methods** A total of 39 healthy good sleepers completed a daily subjective sleep diary (Consensus Sleep Diary-M) for

**Abstract 46 Table 1**

| Winter Data Acquisition (Feb-March 2021, lockdown, home schooling) | | | | | | | 8 schools; $N_{final}$ = **60** (4 excluded) | | | Age 14.5; 72% female | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Online Survey (nr participants) | TMB 1.Letter/Number Switching (nr participants) | TMB 2.Multiple Object Tracking (nr participants) | TMB 3.Verbal Paired Associate (nr participants) | TMB 4.Fast Choices Test (nr participants) | TMB 5.Visual Pairs (nr participants) | TMB 6.Continuous Concentration (nr participants) | EMAapp (nr participants; 3 weeks) | EMAapp (nr entries /43) * | Actigraphy (3 weeks) |
| *Pre* questionnaire | 56 (91%) | 49 (81%) | 46 (72%) | 46 (72%) | 46 (72%) | 46 (72%) | 45 (70%) | 57 (95%) | 19 (44%) | Upcoming |
| *Post* questionnaire | 47 (75%) | 47 (73%) | 46 (72%) | 46 (72%) | 39 (63%) | 39 (63%) | 40 (64%) | | | |
| Summer Data Acquisition (May-June 2021, back to school) | | | | | | | 3 schools; $N_{final}$ = **15** (2 excluded) | | | Age 14; 34% female | |
| *Pre* questionnaire | 15 (100%) | 15 (100%) | 14 (83%) | 14 (83%) | 14 (83%) | 14 (83%) | 14 (83%) | 11 (73%) | 21 (49%) | Upcoming |
| *Post* questionnaire | 12 (74%) | 12 (74%) | 12 (74%) | 12 (74%) | 12 (74%) | 12 (74%) | 12 (74%) | | | |

*no entries excluded