

Results Sixteen participants (Mean age 20.3 (\pm 1.2) years; 10 female, 6 male) completed the study. During the hotel stay, mean sleep quality in the control group was 54.6 (AU) compared to 46.3 in the intervention group. Sleep quality of the control group increased from 54.6 in the hotel to 66.2 at home. No observed differences were statistically significant.

Discussion Overall, no statistically significant evidence was found to support the presence of the FNE in hotels or that use of one's own pillowcase reduces the FNE. However, there is still potential to build upon this research as this is an understudied area and applications in business and wellbeing.

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P071 PSYCHOLOGICAL MORBIDITY IN CHILDREN WITH NARCOLEPSY

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Introduction Narcolepsy occurs due to an inability to regulate the sleep-wake cycle, causing disturbed night-time sleep and excessive daytime sleepiness. Children and young people with narcolepsy have increased psychiatric illness, compared to healthy controls. A recent study of 31 paediatric narcolepsy patients found 43% had psychiatric comorbidity, compared with 10% in the general population.¹

The aim of this service evaluation was to determine whether Sheffield Children's Hospital narcolepsy patients have increased psychological morbidity in order to inform service development.

Methods 43 patients, aged 4–16 years, and their parents were given Revised Children's Anxiety and Depression Scale (RCADS) questionnaires in clinic [Service Evaluation SE1473]. Software produced by the developer was used to analyse the results, using data from a cohort of children and parents separated by gender and American school grade.

Scores are divided into: Separation Anxiety, General Anxiety, Panic, Social Phobia, Obsessive Compulsive Disorder and Depression.

Results 34 patients and parents completed their questionnaires. A positive score was defined by a T score >65, indicating clinically significant anxiety or depression. 16 patients scored positively based on their questionnaires and 25 scored positively based on their parent's questionnaires, giving psychological morbidity rates of 47% and 74% respectively. The category scored positively in most frequently was depression: 15 patients and 23 parents' questionnaires scored positively here. Scoring for anxiety was lower: 13 in the parent and 2 in the patient questionnaires.

Discussion This service evaluation showed raised levels of anxiety and depression in Sheffield Children's Hospital narcolepsy children and young people, compared with national averages. Regular psychological assessment and early intervention for patients would be appropriate, given the results shown here and these results will be put forward as part of a future business case.

REFERENCE

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P072 USING THE 'SLEEP WISE' PROGRAMME TO IMPROVE SLEEP FOR PATIENTS ACCESSING A COMMUNITY PAEDIATRIC SERVICE

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Introduction It may be assumed that children who are patients of a community paediatric service are more difficult to support in order to improve their sleep. This assumption could be due to their condition or the possibility of a co-morbid sleep disorder. It may also be due to parent's reluctance to talk about sleep as there are other issues seen to be more important or even they think that sleep can't be improved. The Sleep Wise programme, commissioned by a CCG, sought to improve sleep for this cohort.

Method 50 children 3 to 12 years old were assessed over 12 months (2018 to 2019) and received a sleep programme, which addressed lifestyle and behavioural changes, working with the family's priorities. Before and after scores were taken for sleep disturbance and the parents rated the impact on family life before and after. A questionnaire was administered once involvement ended.

Results We found that there was a high degree of adherence to the sleep assessment: 88% followed the programme through. 99% reported improved sleep. Average sleep disturbance reduced from 5.5 to 1.9 out of a possible 8. A whole range of factors (self rated) improved. Rating recorded before and after:

Child's daytime behaviour	6.86	3.67
My ability to work to my full potential	5.86	3.13
Effect on quality of life and health	6.89	3.58
Effect on siblings	6.11	3.17
Child's happiness and health	4.97	2.71

80% of those already taking melatonin to help them to sleep came off melatonin completely. 77% avoided medication after Sleep Wise.

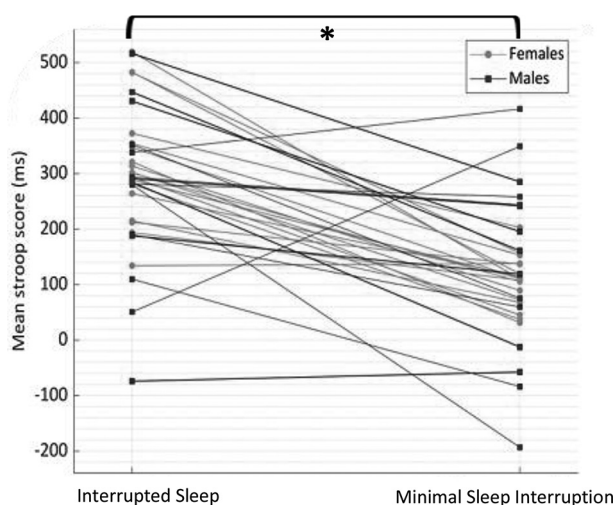
Discussion The 'Sleep Wise' method of engaging children and families was highly effective in empowering families in some of the most challenging circumstances to take control of their child's sleep and achieve success.

P073 THE EFFECT OF SLEEP INTERRUPTION AROUND RAMADAN ON COGNITIVE FUNCTIONING IN 18–25 YEAR-OLD UNIVERSITY STUDENTS

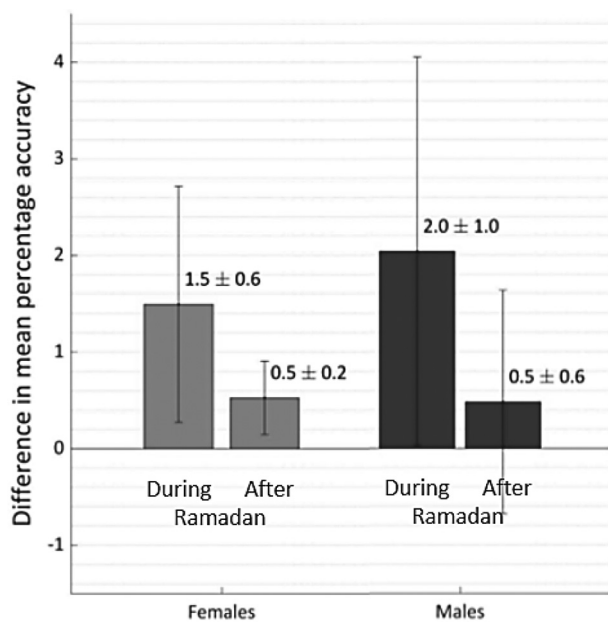
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Introduction Ramadan involves sleep interruption (specifically during REM sleep),^{1 2} which could affect cognition and consequently have a negative effect on students during revision time and examinations. This study aimed to investigate the



Abstract P073 Figure 1 A dot plot comparing the mean Stroop test scores during and after Ramadan for each participant, where an asterisk (*) denotes a significant difference where $p < 0.05$



Abstract P073 Figure 2 A bar graph comparing the difference in percentage accuracy during and after Ramadan in males and females

effect of sleep interruption on cognitive performance in students during Ramadan compared to normal sleep patterns.

Methods Participants were university students, recruited with ethical approval, who regularly (and during the study) had 7–9 hours total sleep. Following sleep interruption during Ramadan (30–90 mins at dawn), participants performed a Stroop test twice within an hour of awakening to assess processing speed and attention. Subsequently, the same test was performed after Ramadan with a maximum sleep interruption of 5 minutes. Participants' time-differences between congruent and incongruent tasks, plus percentage accuracy, were compared between sleep interruption and normal sleep (baseline) for each participant, using Wilcoxon Signed Rank and T-tests

Results 70 students were recruited; 40 were excluded following an eligibility survey and 34 completed the study (15 males, 19 females). Stroop times were significantly slower

during Ramadan, compared to minimal sleep interruption post-Ramadan [$p < 0.001$] (figure 1). There was no significant difference in mean percentage accuracy between during and after Ramadan, in either sex [females $p = 0.11$; males $p = 0.80$] (figure 2).

Discussion The main finding of this study was that sleep interruption due to Ramadan is associated with decreased speed of cognitive functioning, but not with a decrease in accuracy in students aged 18–25 years. These preliminary findings suggest that further research to investigate the effect of the effect of sleep interruption on memory and decision-making, which are key in exam-performance, would be of value. Other confounders such as hydration and chronotype should also be considered.

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P074

A SHORT DEVICE-BASED QUESTIONNAIRE 'SLEEPHUBS CHECK-UP' TO ENGAGE THE GENERAL POPULATION IN UNDERSTANDING MORE ABOUT THEIR SLEEP

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The increased number of people complaining of poor sleep puts a strain on health services where many doctors have neither the time or experience to deal with sleep problems. While it seems that we are good at offering potential solutions to the perceived problem of poor sleep, sleep questionnaires have historically not been written from the general public point of view, and often not easily accessible. The SleepHubs Check-up (SHC) is a 4–6 question device-based questionnaire designed for use by the layman as it is quick and easy to complete and focuses on three categories commonly associated with poor sleep: daytime sleepiness, snoring, and insomnia. Based on the results of the SHC, individuals are assigned into one of three categories: Probable good sleeper – no need to worry further, Possible reasonable sleeper but room for some improvement, possible sleep health issue, clinically relevant, further investigation required.

We undertook a pilot study to engage adults in the SleepHubs Check-up. The responses to the questions were automatically scored and individually weighted. The scores were compared with that of the Insomnia severity Index (ISI), Stop Bang and OSA probability based on the MAP index (MAPI).

One hundred adults (55% female) with an average age of 43 years and average BMI of 26.4 Kg/m² were recruited. Statistical analysis showed a positive correlation (>80%) between SHC and probability of Insomnia using the Insomnia severity Index. Additionally, the SHC score accurately identified individuals at risk of OSA when compared to Stop Bang and MAPI scores.

The SleepHubs Check-up assignment and categorisation criteria has shown to be effective and it is proposed could act as an instrument for use in both research and as a screening