

analysis. A mean increase in Sleep Knowledge of 20% was noted across all studies, with the intensity of the educational intervention correlating with the degree of increase (Spearman's rank 0.679) in all participants, and very strongly in the undergraduate population (Spearman's rank 0.900).

**Discussion** Comparability remains a limitation of the review as not all intervention groups were assessed using validated measures of sleep medicine knowledge. Nevertheless, this provides compelling evidence to argue for additional formalised Sleep teaching in medical education in an already crowded medical curriculum.

#### REFERENCE

1. Romiszewski S, May F, Homan E, Norris B, Miller M, Zeman A. Medical student education in sleep and its disorders is still meagre 20 years on: A cross-sectional survey of UK undergraduate medical education. *Journal of Sleep Research*, 2020;29(6).

P46

#### DEVELOPMENT AND EVALUATION OF A PERSONALISED SLEEP CARE PLAN ON CHILD AND ADOLESCENT IN-PATIENT MENTAL HEALTH WARDS

Kirstie Anderson\*, Rod Bowles, Christine Fyfe, Ron Weddle, Patrick Keown. *Newcastle Upon Tyne Hospital Nhs Foundation Trust, Newcastle*

10.1136/bmjresp-2023-BSSconf.56

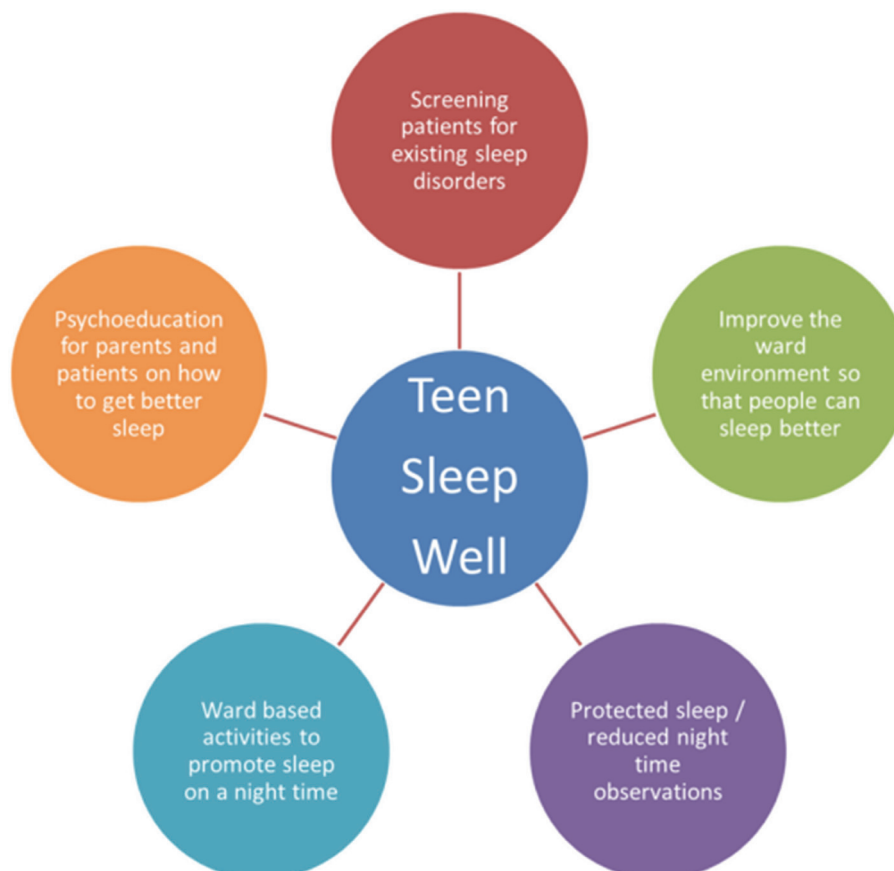
**Introduction** Sleep disturbance has a significant impact on adolescent mental health. The total sleep requirement for adolescents is longer than adults with specific differences in circadian rhythms. However, in-patient mental health wards

can directly cause poor sleep, independent of the problem that led to admission. Sleep disruption significantly impacts mental health and is an independent risk factor for suicide and behavioural disturbance. In addition, sleep disorders such as insomnia, delayed sleep phase syndrome and restless legs syndrome are common in adolescents with mental health problems. These sleep disorders remain under diagnosed despite effective therapies. We have previously shown in adults that the timed hourly overnight observations were disruptive, not necessary for all and a personalised sleep care plan was safe with reduced hypnotics used.

**Methods** A pilot study was carried out on 4 Children and Young Person Services (CYPS) mental health wards, (including learning disability units, general adolescent service and intensive care) to test a package of measures to safely enhance sleep management specifically for adolescent in-patients (Teen-SleepWell). The aim was to evaluate the outcomes and if successful, for this to be used trust-wide across all CYPS inpatient units. This is novel for the UK. The measures are detailed in figure 1 below with identified ward sleep champions and regular 3 monthly review of hypnotics, those able to have protected sleep and any adverse events measured over a 2 year time period.<sup>1-3</sup>

**Results** Staff, patient and parent feedback interviews were positive with no adverse events relating to protected sleep but decreased total issue of hypnotics, this allowed 57% of patients to have a protected 8 hour sleep period at any one time.

**Discussion** A personalised sleep care plan was safely implemented allowing protected sleep for many adolescents and



Abstract P46 Figure 1

reducing inappropriate hypnotic use. This service improvement had positive feedback.

## REFERENCES

1. Horne S, Hay K, Watson S, Anderson KN. An evaluation of sleep disturbance on in-patient psychiatric units in the UK. *BJPsych bulletin*, 2018;**42**(5):193–197.
2. Novak C, Packer E, Paterson A, *et al.* Feasibility and utility of enhanced sleep management on in-patient psychiatry wards. *BJPsych Bulletin*, 2020;**44**(6):255–260.
3. Veale D. Against the stream: intermittent nurse observations of in-patients at night serve no purpose and cause sleep deprivation. *BJPsych Bull.* 2019;**43**(4):174–176.

P47

### A REVIEW OF POLYSOMNOGRAPHIC FINDINGS IN FIBROMYALGIA PATIENTS PRESENTING TO A TERTIARY SLEEP CENTRE – ASSESSING UTILITY OF POLYSOMNOGRAPHY IN THIS PATIENT GROUP

Rexford Muza\*, Sean Higgins. *Guy's And St Thomas' NHS Trust, London*

10.1136/bmjresp-2023-BSSconf.57

**Introduction** Patients with fibromyalgia have numerous, persistent and debilitating symptoms. Sleep complaints are well-nigh universal in patients with fibromyalgia. We reviewed the polysomnography results of consecutive patients referred to a tertiary sleep centre for investigation of their sleep complaints

**Objectives** To determine the usefulness of polysomnography in the work-up of sleep complaints of patients with fibromyalgia.

#### Methods

- A retrospective cohort study in a tertiary National Health Service (NHS) hospital sleep disorders centre
- Clinical notes of the fibromyalgia patients at initial consultation with the sleep clinician were reviewed.
- The polysomnography studies were then reviewed, noting the main study findings.
- Clinical notes and treatment advice post sleep studies were then reviewed

**Results** 106 fibromyalgia patients were referred for polysomnography.

15 were male and 91 were female.

Their ages ranged from 27 to 79. The mean age was 58.

Periodic limb movements of sleep were seen in the majority of patients but some of these patients were on anti-depressant

medications. Pregabalin was the most frequently prescribed medication.

The second most frequent finding was obstructive sleep apnoea and PAP therapy was recommended in the majority.

A good number of patients had insignificant findings on polysomnography (table 1).

**Discussion** The two most common findings were of periodic limb movements of sleep and sleep apnoea. In that respect, polysomnography is useful in the work up of fibromyalgia patients.

Some of the polysomnography findings were due to the medications the patients were taking for the fibromyalgia, e.g. periodic limb movements of sleep, reduced REM sleep proportion and REM without atonia.

It would have been quite interesting to know if PAP therapy helped improve the pain but this was not mentioned.

P49

### ASSESSING SLEEP QUALITY AND THERMAL COMFORT IN REAL BEDROOMS: TOWARDS A STANDARDISED METHODOLOGY

<sup>1</sup>Jaydeep Bhadra\*, <sup>1</sup>Arash Beizae, <sup>2</sup>Iuliana Hartescu, <sup>1</sup>Kevin Lomas. <sup>1</sup>*Building Energy Research Group, School of Architecture, Building and Civil Engineering, Loughborough University, Loughborough, UK;* <sup>2</sup>*Clinical Sleep Research Unit, School of Sport, Exercise and Health Sciences, Loughborough University, Loughborough, UK*

10.1136/bmjresp-2023-BSSconf.58

**Introduction** The influence of a person's immediate surroundings and physical environment (such as bed and bedroom condition) on sleep has gained interest.<sup>1–19</sup> This study aimed at identifying a standard methodology or guideline to assess the thermal comfort of sleeping people in bedrooms. The literature suggests there are various methods, approaches, tools, and metric to measure and quantify sleep quality and thermal comfort in isolation.<sup>8,10,27–29,11,20–26</sup> But there's no standard method which takes an approach to study these both, emphasizing the lack of a standardized methodology to conduct field trials in real bedrooms.

**Method** The method involves conducting a literature review to identify appropriate indices for measuring sleep quality and thermal comfort of sleeping people. Based on it, an approach was developed for conducting the field studies (refer figure 1 & 2).

Abstract P47 Table 1 Polysomnography findings

Polysomnography Findings	Number of Patients
Periodic Limb Movements of Sleep	27
Sleep Apnoea	26
REM without atonia	9
Arousals from slow wave sleep	4
Consistent with insomnia	14
Insignificant findings	23
Alpha intrusion	4