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### IMPACT OF AN ONLINE SLEEP AND INSOMNIA TRAINING PROGRAMME ACROSS A MENTAL HEALTH TRUST – USE AND BEHAVIOUR CHANGE

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**Introduction** There is very limited sleep medicine education within the UK at undergraduate or post graduate level. There are a small number of accredited, online sleep medicine course offered at UK universities but these are costly and this may limit access for many health professionals. Face to face training is available for small numbers only. Any sleep education and training should be validated

**Method** An interactive, online sleep medicine training package was developed and embedded within the e-learning modules of the National Health Service Electronic Staff Record (ESR). This was then made freely available to every staff member of a large UK mental health trust (total staff 7000). This allowed all health professionals to access the material. Data analytics then tracked patterns of use, the knowledge gained as measured by knowledge based quiz before and after training. The results of the first 50 users are presented in detail. It comprised 4 x 45 minute modules covering function of sleep and physiology over the lifespan, sleep disorders, relevant investigations for in-patients and out-patients, basic principles of CBT for insomnia.

**Results** Of the first 50 users that registered sequentially, the majority were nursing staff (36%), psychologists (30%) but medical (4%), pharmacy (2%), service managers (10%) also completed training. 39 viewed all modules, of those who completed post intervention quiz all had improved knowledge base. Time to complete training had a wide range from 5 days to 3 months with 32% viewing on multiple occasions.

**Discussion** This is a novel use of the NHS ESR system which allows e-learning for sleep medicine in a format that can be used to validate the effectiveness of training. It allows a complete range of health care professionals in secondary care to access free, online sleep medicine education.

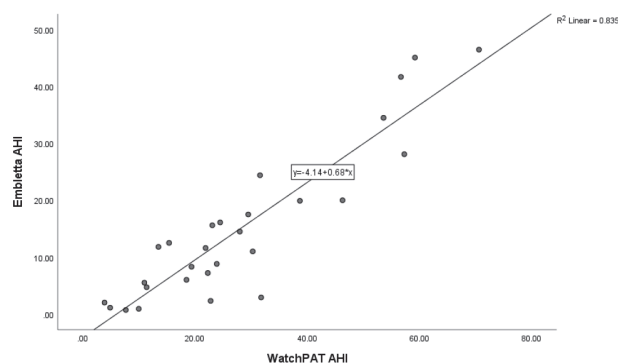
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### VALIDATION OF WATCHPAT 300 FOR PRE-OPERATIVE OF OSA SCREENING IN PATIENTS UNDERGOING BARIATRIC SURGERY

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**Introduction** Undiagnosed obstructive sleep apnoea (OSA) is increasingly recognized as a serious post-operative risk with bariatric surgery, hence increasing demand for pre-operative screening and a need for simpler ways for screening than the clinical standard, respiratory polygraphy, to mitigate strain on sleep services. WatchPAT 300 (WP) is a finger-mounted sensor that uses peripheral arterial tonometry to estimate the apnoea hypnoea index (AHI). While its use is increasing it has not yet been validated in patients with a BMI >35, the target population in bariatric surgery.



**Abstract 20 Figure 1** Correlation between AHI as measured by WatchPAT and Embletta

**Aims** To validate WP against polygraphy in pre-bariatric surgery patients with clinically suspected OSA and a BMI >35 and to assess patient acceptability of WP.

**Methods** AHI was measured simultaneously with WP and Embletta. Outcome measures were 1) autoscored AHI from WP and 2) manually re-scored AHI from Embletta. Agreement between AHI from Embletta and WP was assessed using intra-class correlation coefficient (ICC), bland Altman and ROC plots.

**Results** 28 patients (22 female/6 male, mean  $\pm$  SD age 44.1  $\pm$  11.6, BMI 45.7  $\pm$  7.5) participated. One study failed due to the patient removing the WP probe prematurely. AHI was higher in WP than Embletta (28.1  $\pm$  17.9 versus 15.0  $\pm$  13.4;  $p < 0.05$ ). There was a strong positive correlation between WP and Embletta AHI measurements (ICC 0.876 (95% CI 0.75-0.94; figure 1)). Bland Altman plots revealed a systematic bias; differences diverging at higher AHI values. A ROC plot revealed high sensitivity and specificity for an AHI >15 (Area under the curve 0.917;  $p < 0.05$ ). 97% of respondents reported that WP would be acceptable to them if introduced into the bariatric surgery pathway.

**Discussion** WP accurately estimates the AHI in pre bariatric surgery patients, has a low failure rate and is clinically acceptable in this group. Further larger scale studies are needed to confirm these findings before incorporating into clinical guidelines.

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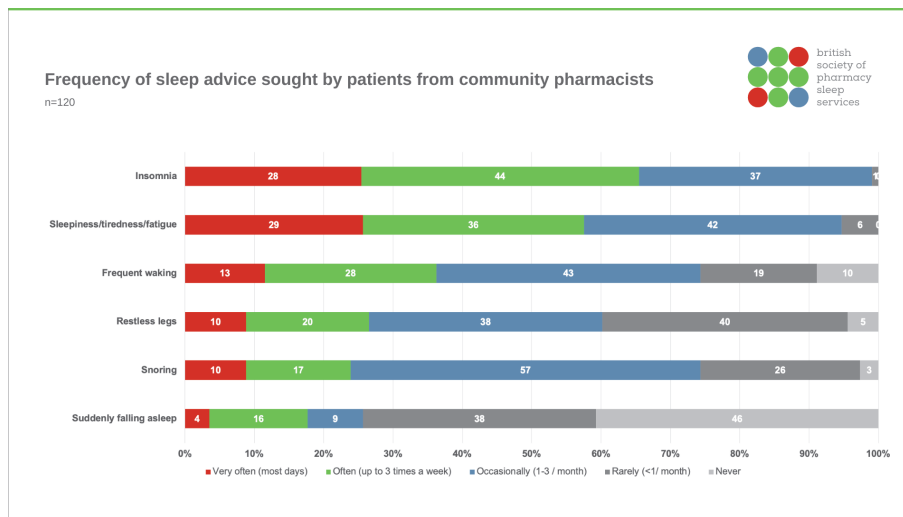
### COMMUNITY PHARMACIST PERCEPTIONS OF SLEEP-RELATED ADVICE REQUESTS AND THEIR ROLE IN SLEEP MANAGEMENT

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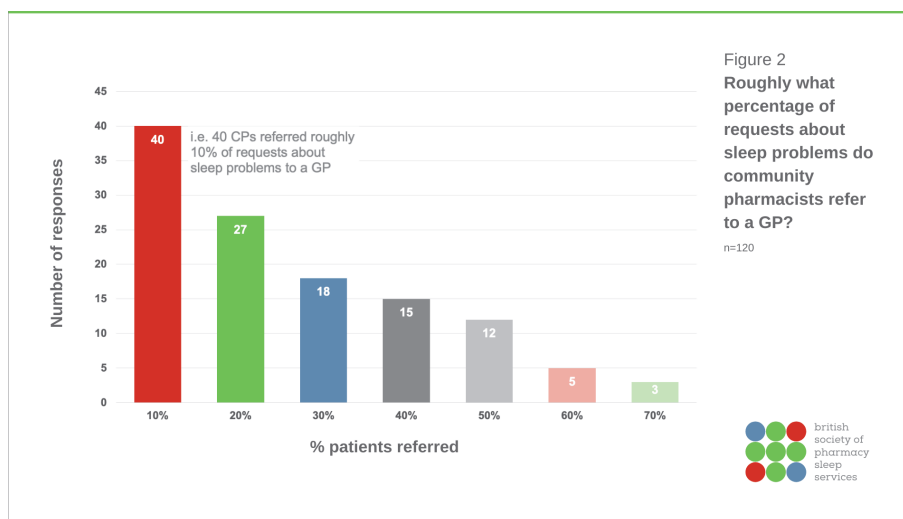
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**Introduction** Community pharmacists (CPs) are an easily accessible, convenient source of first-line health advice. However, little is known about the range of sleep-related problems encountered by CPs or their opinions on pharmacy-based sleep services. This study explored CP's perceptions of the sleep-related problems they encounter, their undergraduate training on sleep-related disorders and views of their role in providing sleep-related advice.

**Method** An online survey utilising evidence-based approaches to improve response rates was distributed to CPs recruited



Abstract 21 Figure 1 Frequency of sleep advice sought by patients from community pharmacists



Abstract 21 Figure 2 Roughly what percentage of requests about sleep problem do community pharmacists refer to a GP?

through professional networks and social media. The survey asked CPs to record their perceptions on how often patients sought advice on several common sleep problems, as either ‘very often’ (most days), ‘often’ (1–3 times/week), ‘occasionally’ (1–3 times/month) or ‘rarely’ < once/month).

Other areas included self-rated confidence dealing with requests on sleep problems (1–5 Likert scale: 1 being ‘not confident’ and 5 ‘confident’), estimated proportion of GP-referred requests for advice and the perceived need for community-based sleep-related services. Data analyses were descriptive.

**Results** Completed responses were obtained from 120 CPs. Results summarised in figures 1 and 2. Combining ‘often’ and ‘very often’, the most common sleep-related problems encountered were insomnia (60%) and sleepiness/tiredness/fatigue (54%).

Half the CPs self-rated their confidence as 3 on the ‘confident - not confident’ scale. Fifty-seven percent reported that they received no undergraduate training on sleep problems. Proposed pharmacist involvement in sleep screening/signposting services or a pharmacy-based intervention/referral programme was supported by 78% and 70% respectively.

Fifty-eight percent of CPs were ‘very often’ or ‘often’ asked about symptoms of OSAS, with the majority (93%) asked ‘occasionally’.

**Discussion** CPs frequently encounter patients with symptoms of sleep disorders, but their confidence and training in dealing with these is lacking. This study highlights the need for specialist sleep training for pharmacists and the development of pharmacy-based services to support and improve patient outcomes.

22 **24-HOUR MOVEMENT BEHAVIOURS (PHYSICAL ACTIVITY, SEDENTARY BEHAVIOUR AND SLEEP) IMPACT ON ADOLESCENTS PHYSIOLOGICAL AND PSYCHOSOCIAL ADAPTATION TO TYPE 1 DIABETES: A MIXED METHODS SYSTEMATIC REVIEW**

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