P042 DOES SLEEP INERTIA AFFECT HOW WE PERCEIVE TIME? – IMPLICATIONS FOR INSOMNIA

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Introduction Sleep inertia (SI) can negatively affect cognitive functions including time perception. Accurate time perception is important for evaluating wakefulness at night. Overestimating wakefulness can be anxiety-provoking for individuals with insomnia. Here we present data from three studies testing the impact of SI on time perception after waking from sleep versus after a wake period.

Methods Participants were required to complete a time estimation task after waking from sleep and after a wakeful period. In study 1 and 2 (n=18), sleep occurred as part of a daytime nap with polysomnography. In study 3 (n=9) sleep occurred at night in a laboratory. Study 1 and 3 included good sleepers and study 2 included poor sleepers. The time estimation task was the same across all studies asking participants to state when they believed 15 minutes had passed, see figure 1.

Results Data from study 1 and 2 were pooled. Participants overestimated time, however there was a greater overestimation after waking from a nap compared to the wake condition, $t(17)=-2.089$, $p=0.052$, $d=0.7$. For those individuals who reached stage 3 sleep during the nap (when waking with SI is more likely) the difference was significant, $t(9)=-3.22$, $p<0.05$, $d=1.1$). There was no main effect of sleep status (poor sleeper vs. good sleeper) on these differences. In study 3 there was no difference ($p>0.05$) between the two conditions (wake vs. sleep), see figure 2 for a summary of the findings.

Conclusion Overestimation of time awake was more pronounced after waking from a nap condition compared to after

a wake period, especially when waking from stage 3 sleep. The same effects were not present when waking from sleep at night, perhaps due to different study designs. Further research in larger samples is needed to understand the impact of SI on time perception.

P043 PREVALENCE OF A MENTAL HEALTH DIAGNOSIS IN PATIENTS PRESCRIBED CPAP THERAPY AND ITS IMPACT ON TREATMENT ADHERENCE

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Introduction Obstructive Sleep Apnoea (OSA) is a common condition, highly prevalent but under-recognized in patients with a Mental Health Diagnosis (MHD). Patients with MHD have a higher prevalence of risk factors such as obesity, diabetes, hypertension, hyperlipidaemia, tobacco smoking, alcohol consumption and sedative medication use. Continuous Positive Airway Pressure (CPAP) therapy is effective in reducing sleepiness and improving quality of life. However, treatment adherence may be low, which can compromise its effectiveness.

Method We performed a Service Audit by reviewing clinical data regarding all patients in the Sleep Unit at Lister Hospital who have been prescribed CPAP therapy between June 2011 and July 2018 (n=2642), with the aim of determining the prevalence of MHD and characterizing the population and adherence to treatment.

Results Out of the 2642 patients who were included in the audit:

- 2018 (76.4%) were using CPAP
- 624 (23.6%) stopped CPAP treatment for various reasons
- 442 (16.7%) had a MHD

Abstract P042 Figure 1 Conceptual outline of time estimation task

Abstract P042 Figure 2 Results of all three studies