limitations in interpretation of findings due to the small number of participants in the pilot survey.

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P069

INVESTIGATING THE IMPACT OF INSULIN RESISTANCE ON AGEING AND WELLBEING USING SLEEP AS A MODEL SYSTEM

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Sleep controlled by the circadian rhythm is essential for many functions including energy conservation, memory consolidation and brain processing. Sleep duration and architecture changes with age. Sleep deprivation is very common in modern society and it has been identified as a major modifiable risk factor for many metabolic diseases.

A cross-sectional analysis was carried out on baseline data from the UK Biobank (n=82995). Sociodemographic, health-related and lifestyle information were collected using touch-screen questionnaires. Sleep and physical activity parameters were measured objectively using wrist-worn accelerometers (participants were aged 43–79 years). Sleep durations have been categorised into five groups. short sleepers: (1) <5 hours/night, (2) 5–6 hours/night, (3) 6–7 hours/night; normal sleepers: (4) 7–8 hours/night; long sleepers: (5) >8 hours/night.

Short objective sleep duration was associated with male gender, older age and lower social status. A greater proportion of males with a sleep duration <5 hours/night have very high risk waist circumference (>102cm) compared to normal and long sleepers (22.1%, 14.9%, 11.7%, 10.4% and 10.2%, respectively). A similar pattern was also seen in females (60.0%, 50.6%, 43.9%, 41.3% and 40.6%, respectively). The percentage of participants with cardiometabolic diseases is significantly lower in those who sleep between 6–8 hours/night compared to other short and long sleepers (34.8%, 27.7%, 26.0%, 25.9% and 29.1%, respectively). They also have better health ratings and less likely to have hypertension, diabetes and cardiovascular disease. Finally, those who sleep 6–7 hours were most physically active compared to others sleep groups. In conclusion, 6–8 hours of sleep per night is associated with better metabolic health and higher physical activity level. Short sleep duration is associated with male gender and social deprivation. Although, no causal link can be established from this study, the results can help to develop interventions for targeted groups to reduce the adverse effects of poor sleep.

P070

CAN FAMILIAR SENSORY INPUTS REDUCE THE FIRST NIGHT EFFECT WHEN SLEEPING IN AN UNFAMILIAR HOTEL ROOM?

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Introduction The first night effect (FNE) is the phenomenon of reduced sleep quality during the first night in a new environment. It is hypothesised that this is due to asymmetrical levels of activity in the two hemispheres of the brain to remain more vigilant. We aimed to determine whether the first night's stay in a hotel led to a reduction in sleep quality, and whether this could be mitigated by using one's own pillowcase.

Methods Participants were recruited with ethical approval via a questionnaire including a list of exclusion criteria. Participants then spent one night in the hotel room, followed by four nights at home. During the hotel stay the 'control group' used the hotel pillowcase and the 'intervention group' used their own pillowcase. Sleep quality was self-reported using a visual analogue scale, which was then converted into numerical data. Sleep quality at the hotel was compared to the mean quality at home. Additionally, hotel sleep quality was compared between the control and intervention groups. All data was analysed using a paired two-tailed t-test.