been found to predict treatment adherence and outcomes. In this study, the aim was to determine the health literacy of a sleep clinic population and evaluate the association between health literacy and CPAP adherence.
Methods: A prospective cohort study was undertaken, recruiting 104 consecutive patients with a variety of sleep diagnoses attending the clinic. The Short Form Rapid Estimate of Adult Literacy in Medicine (REALM-SF), a validated questionnaire was administered to measure health literacy. In a sub-group of 91 patients prescribed CPAP for OSA, CPAP usage was measured, with adequate usage defined as greater than 4hrs/night CPAP therapy.
Results: 71% of the sleep clinic cohort was found to have adequate health literacy as measured by the REALM-SF. In those prescribed CPAP for OSA, inadequate health literacy was associated with a two fold increase risk for inadequate CPAP usage (adjusted odds ratio 2.75, 95% CI: 1.00 - 7.6, p = 0.05). There was a 1.7hr/night difference in median CPAP usage comparing those with adequate to inadequate health literacy (4.6hrs versus 6.3hrs/night).
Conclusions: The majority of this sleep disorders cohort had adequate health literacy as measured by the REALM-SF questionnaire. However inadequate health literacy appears to be an independent predictor of treatment adherence, and may represent a potentially modifiable risk factor of poor treatment outcomes in OSA.

P033

RANDOMISED CONTROLLED TRIAL ON THE EFFICACY OF AUDIO-VISUAL HEALTH EDUCATIONAL MATERIALS ON CPAP ADHERENCE: THE AHEAD TRIAL

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OSA is a prevalent chronic disease with significant health implications, for which achieving >4 hours/night on continuous positive airway pressure (CPAP) is essential for effective treatment. Educational videos to improve CPAP adherence are of interest as a low-cost intervention, however trials have shown mixed results. This study aimed to compare CPAP usage following standard of care education (SOCE), with the usage following the addition of educational videos, customised to incorporate low health literacy communication, motivational and self-efficacy techniques.
Methods: Adults with OSA recommended treatment with CPAP, were recruited and randomised in a single blinded method, to watch short educational videos following their in laboratory CPAP study or SOCE. The primary outcome was CPAP usage at 2mths and secondary outcomes were usage at 12mth and proportion of patients with adequate usage >4hrs/night.
Results: 195 patients met the eligibility criteria and were randomised to video education (n = 96) or to SOCE (n = 99). There was no significant difference in compliance at 2mths (median usage 1.7hrs IQR 0–6.2 SOCE, 4.4hrs IQR 0–6.7 video education p = 0.1), however at 12mths there was increased usage in the video education arm (median 0hrs IQR 0–5.4 standard of care, 3.8hrs IQR 0–6.87 p = 0.05). The proportion with adequate CPAP usage >4hrs/night at 12mths was higher in the video education group (33, 33% versus 48, 50% p = 0.01).
Conclusions: Long-term adherence to CPAP is enhanced by the addition of educational videos that incorporate low health literacy communication and motivational techniques, compared to SOCE.

P034

INTER-SCORER CONCORDANCE IMPACTS MSLT RESULTS

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Title: Inter-scorer concordance impacts MSLT results
Introduction: A retrospective study on the effect of inter-scorer concordance and impact of analysing polysomnography (PSG) data prior to the Multiple Sleep Latency Test (MSLT) on clinical interpretation of Narcolepsy (N) and Idiopathic Hypersomnolence (IH).
Methods: Data of four individuals was randomly selected from a cohort of patients that participated in MSLT studies. De-identified MSLT fragments from four nap periods (n=16) were scored in two groups: analysis of PSG conducted prior to the respective MSLT fragments, and analysis without access to prior PSG. Individual scorers were compared to a master score set, by consensus from two experienced sleep scientists.
Spearman correlation and percentage agreement statistics were applied to calculate the inter-scorer concordance in sleep latency and REM latency. Mann-Whitney test was utilised to assess differences between the two groups. A positive result was assigned as: mean (n=4) sleep latency of <10min (IH), and mean (n=4) sleep latency of <8min including (n=2) SOREMs (N).
Results: From 16 sets of data, four false positive results were identified when PSG was not analysed prior to scoring the MSLT fragments. Additionally, statistically significant differences were present when PSG analysis was conducted prior to scoring MSLT sleep latency and REM latency data.
Discussion: These results support a recommendation that PSG analysis (sleep and REM latency) should be encouraged prior to MSLT studies and performed by the same sleep scientist. Furthermore, including MSLT data in intra-lab concordance activities is important, particularly in relation to medical interpretation and practice.

P035

IS THE GRAEL OXIMETRY AVERAGING TIME INTERCHANGEABLE WITH A MASIMO PULSE OXIMETER ALGORITHM IN POLYSOMNOGRAPHY?

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Compumedics recording software (Grael V2) for polysomnography (PSG) calculates SpO2 values using a 3-heartbeat long averaging window. This is derived from the ECG and thus introduces variability in the averaging time that is dependent on the heart rate. Little is known about the effect this has on the common oximetry metrics used in PSG interpretation. This study explorer the interchangeability of the Grael V2 inbuilt 3-beat averaging algorithm with a short averaging window of 2 - 4 seconds using a Masimo Radical 7 pulse oximeter during a PSG.
SpO2 data were collected from 2 oximeter probes (Grael and Radical 7) both attached to a patient's fingers. After SpO2 artifacts were removed, the following SpO2 parameters from each oximeter were generated: mean sleep SpO2, oxygen desaturation index (ODI) using 2%, 3% and 4% drop in SpO2 in sleep, total sleep time (TST) with SpO2 < 90% and < 80% as well as time spent < SpO2 88% in minutes. 88 sleep studies were included in the data collection.