Results We identified seven RCTs (N = 1102) and four UCTs (N = 49). Findings suggest that SRT is associated with a medium effect size for improvement in depressive symptoms at post-treatment (Nc = 6; Np = 847, g = -0.45 [95% CI = -0.68 to -0.22], p = <0.0001) and a small effect size at follow up (Nc = 4; Np = 735, g = -0.31 [95% CI = -0.45 to -0.16], p = <0.0001). Five of the seven included RCTs were judged to have high risk of bias. Heterogeneity among the studies was moderate at post-treatment (I2 = 45.5% [95% CI = 0 to 78], p = 0.11) and small at follow-up (I2 = 0% [95% CI = 0 to 84.7], p = 0.83).

Discussion Standalone SRT appears to improve depressive symptoms at post-treatment and follow-up. However, conclusions are tentative due to the small number of trials and because no studies were performed in patients with clinically diagnosed depression Findings also highlight the need to improve the reporting and standardisation of SRT.

04 THE EVALUATION OF A NOVEL SLEEP APNOEA MONITOR: NIGHT-TO-NIGHT VARIABILITY IN HEALTHY ADULTS

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Introduction Obstructive sleep apnoea (OSA) is underdiagnosed, necessitating an expansion of clinical testing.[1] The novel Sunrise™ monitor (Sunrise, Belgium) provides an automated approach for diagnosing OSA, utilising mandibular movement and machine learning to estimate the apnoea-hypopnea index (AHI). AHI varies across consecutive nights of sleep analysis.[2] This study aimed to evaluate the night-to-night variability in the estimated AHI as detected by the Sunrise™ monitor in healthy adults.

Methods Nineteen healthy volunteers (mean ± SD 38.1 ± 18.2 years), who reported snoring but had no diagnosed sleep disorders were invited to participate. Each participant underwent a home sleep study, wearing both the Sunrise monitor™ and a respiratory polygraphy device (Apnoealink, Resmed, Australia) simultaneously, on two consecutive nights. The Sunrise™ monitor provided an automated estimated AHI; the polygraphy data was automatically analysed using AASM 2012 scoring criteria, and then manually reviewed.[3] The change in AHI across the two nights was evaluated using the Wilcoxon signed-rank test, and the agreement in the AHI across the two nights was evaluated using the intraclass correlation coefficient (ICC).

The study was approved by the Imperial College London's ethics committee, which granted the supervisors the ability to review after submitting the Research Governance and Integrity Team (RGIT) ethics checklist.

Results The change in AHI for both the Sunrise™ monitor and respiratory polygraphy differed from night-to-night by -0.6 events/hour and -1.1 events/hour respectively (table 1). These differences were not statistically significant. The Sunrise™ monitor exhibited a higher level of agreement in AHI measurements from night-to-night compared to respiratory polygraphy; ICC 0.77 (0.50 to 0.91) vs 0.59 (0.21 to 0.82).

Discussion Both devices displayed a variability in the AHI between the two nights, the variability was less for the Sunrise™ monitor compared to Respiratory Polygraphy. Further investigation is necessary to assess its impact on OSA diagnosis and severity.

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Abstract O4 Table 1

Device	Night 1 AHI (events/hour) Mean ± SD	Night 2 AHI (events/hour) Mean ± SD	Percentage change in the mean AHI from night 1 to night 2	*p*- value (Change in AHI between night 1 and 2)	Intraclass correlation coefficient of night 1 and 2 (95% confidence interval)
Sunrise™ monitor AHI	9.2 ± 6.9	8.6 ± 5.6	-6.5%	0.98	0.77 (0.50 to 0.91)
Manually Adjusted Respiratory Polygraphy AHI	5.3 ± 4.3	4.2 ± 3.9	-20.8%	0.10	0.59 (0.21 to 0.82)