

experience in relation to their sleep-related routines with their toddlers?'

Method This was a qualitative study based on semi-structured online interviews with 21 mothers of 1–3 year olds. Parents were asked to narrate the sleep-related practices they typically used over the 24-hour sleep/wake cycle with their toddlers and how they felt during and about their routines. Data were analysed using reflexive thematic analysis.

Results Nine themes were identified, two with associated sub-themes. Participants reported positive feelings of happiness and enjoyment, relaxation and freedom, and negative feelings of guilt, sadness, restriction, frustration, worry and uncertainty about their sleep-related routines. Many also reported a neutral feeling of acceptance.

Discussion Caregivers can experience a wide range of positive and negative feelings in relation to their sleep-related routines with their 1–3 year olds, which may be beneficial or detrimental to both their child's sleep and their own mental health. Assessment of routines and advice on implementation should take account of caregivers' emotional experiences and be tailored to individual families' values, preferences and priorities.^{1–9}

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P6

THE EFFECTS OF PARTIAL SLEEP RESTRICTION AND SUBSEQUENT CAFFEINE INGESTION ON NEUROVASCULAR COUPLING IN YOUNG HEALTHY ADULTS

Alice Lester*, Bert Bond, Gavin Buckingham. *University of Exeter, Exeter, UK*

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Habitual poor sleep is associated with cerebrovascular disease, and acute total sleep deprivation alters the ability to match brain blood flow to metabolism (neurovascular coupling, NVC) though it is not known how partial sleep restriction affects NVC. Furthermore, caffeine disrupts NVC in the rested state, but its effects in the sleep restricted state are unknown. The purpose of this study was therefore to investigate the

effects of partial sleep restriction and subsequent caffeine ingestion on NVC.

Seventeen healthy adults (age 27 ± 5 years, 9 female) completed three separate overnight experimental conditions with morning supplementation: normal sleep plus placebo (Norm_Pl), normal sleep plus caffeine (Norm_Caf), and partial (50%) sleep restriction plus caffeine (PSR). PSR involved participants staying awake during the first half of the night and waking at their normal wake time. Participants completed a visual search induced NVC assessment, with posterior cerebral artery blood velocity (PCAv) measured using transcranial Doppler ultrasound. NVC was assessed the evening before and twice the morning after each sleep condition – pre and 1 hour post caffeine ingestion.

NVC responses as a percent increase from baseline and as incremental AUC were not significantly different at any time-point, across all conditions ($P > 0.87$). PCAv at baseline, peak, during the final 10 seconds of the visual search task, and as total area under the curve (AUC) were significantly lower 1 hour after caffeine ingestion in both the Norm_Caf and PSR conditions as compared to post placebo in Norm_Pl ($P < 0.05$), with no difference between Norm_Caf and PSR ($P > 0.14$).

In conclusion, NVC was unaltered after partial sleep restriction, and caffeine did not modify the magnitude of the NVC response in either the rested or sleep deprived state. Future research should explore how an accumulation of habitual poor sleep affects cerebrovascular function.

P7

A COMPARISON IN APNOEA-HYPOPNOEIA INDEX CALCULATION BETWEEN RESPIRATORY POLYGRAPHY & CPAP-GENERATED AUTO SCORE IN CHILDREN

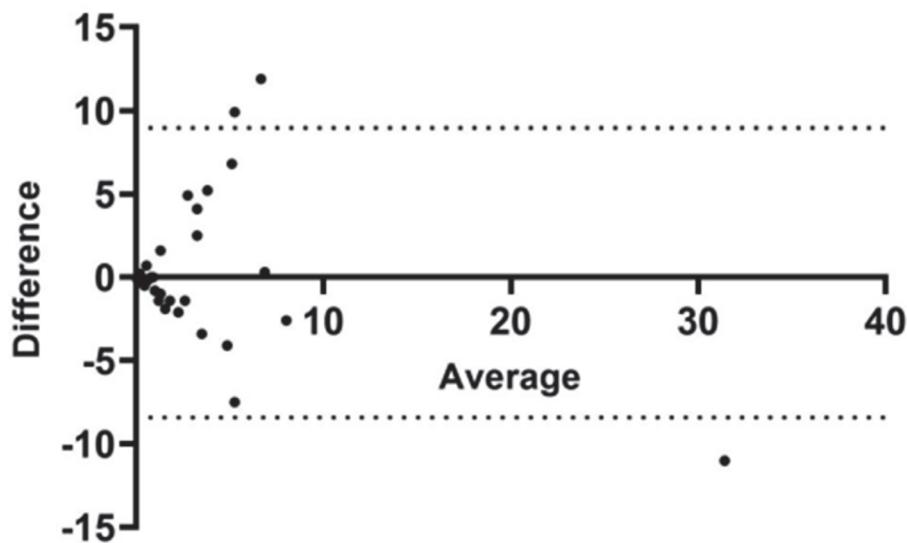
¹Alex Thomas*, ¹Siobhan Kenny, ^{1,2}Hui-Leng Tan. ¹Royal Brompton Hospital, London, UK; ²Imperial College London, London, UK

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Introduction Modern CPAP devices have an inbuilt algorithm to detect reductions and cessations in patient-generated airflow, generating an estimated apnoea-hypopnoea index (AHI) for each therapy session. This data is often used by clinical teams to guide the management of patient's CPAP therapy. Whilst previous comparison studies have shown good agreement with scored AHI from respiratory polygraphy and polysomnography, CPAP-generated AHI is poorly validated in paediatric populations. To address this, we compared same-night CPAP-AHI with physiologist-scored respiratory polygraphy AHI in children.

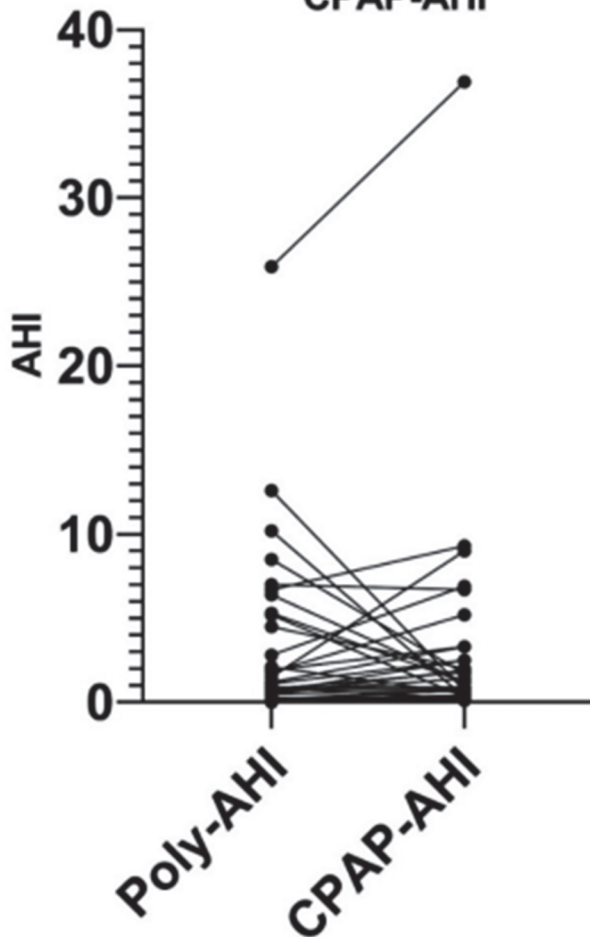
Methods 31 patients (20 male/11 female, mean [SD] age 11.4 years [4.3], mean [SD] weight 65.9 kg [35.4]) on CPAP therapy for sleep-disordered breathing underwent a respiratory polygraphy study (pressure flow, thoracic & abdominal effort, ECG, SpO₂) on their CPAP device for therapy optimisation as part of their routine clinical care. Each study was scored by an experienced sleep physiologist to generate an AHI (poly-AHI). Each CPAP device (ResMed Ltd) was interrogated the following morning via remote monitoring (Airview, ResMed Ltd) to obtain the CPAP-AHI from the same night. Poly-AHI and CPAP-AHI were compared using Bland-Altman analysis and Wilcoxon signed-rank test (Graphpad Prism 9.0, GraphPad Software).

Bland-Altman of Poly-AHI vs CPAP-AHI



Abstract P7 Figure 1

Comparison of Poly-AHI & CPAP-AHI



Abstract P7 Figure 2

Results There was no significant difference between Poly-AHI (median 1.2/hr (IQR 0.5–5.3)) and CPAP-AHI (median 1.2/hr (IQR 0.4–3.3)), $W = 24$, $P = 0.792$.

Bland-Altman analysis showed good agreement between Poly-AHI and CPAP-AHI (bias 0.26, SD 4.43, 95% LoA - 8.42–9.95) (figure 1).

6/31 patients had a Poly-AHI to CPAP-AHI difference of >5.

Discussion The AHI generated by the internal algorithm of PAP devices can be used to provide some indication of how well PAP therapy is controlling sleep disordered breathing in paediatric populations. Notable disparities between poly-AHI to CPAP-AHI [figure 2] in several patients indicate caution should still be exercised when using CPAP-AHI to guide clinical care.

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P8 BOTH GOOD SLEEP QUALITY AND BETTER PSYCHOLOGICAL HEALTH PREDICT REDUCED LONG-TERM FORGETTING OF VERBAL EPISODIC MEMORY

Mark Avery*, Colin Lever, Holger Wiese. *Durham University, Carthorpe*

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Introduction Good sleep is thought to facilitate memory consolidation, yet its potential role in long-term memory (e.g., 2 weeks after the learning event) is largely unexplored. We examined if good sleep would predict lower long-term forgetting by modifying a standard neuropsychological test of verbal episodic memory (VEM) to include re-test without notice after two weeks.

Methods 145 cognitively-normal subjects (M=55.3 years, SD=17.1 years) undertook two separate phases of memory-