

**P071****LISTENING TO BEYONCÉ: FACTORS ASSOCIATED WITH NON-ATTENDANCE AT AN OUTPATIENT SLEEP CLINIC***Lau H<sup>1</sup>, O'Brien D<sup>1</sup>, Hundloe J<sup>1</sup>, Samaratunga D<sup>1</sup>*<sup>1</sup>Royal Brisbane And Women's Hospital, Herston, Australia

**Introduction:** Patient non-attendance at outpatient sleep clinics is common and costly. Little is known about the factors associated with sleep clinic non-attendance, especially in an Australian context. The goal of our audit was to identify the patient, referral, and appointment factors that may affect attendance at an outpatient sleep clinic.

**Methods:** A case-control study was performed in 171 patients (57 cases / non-attenders and 114 controls / attenders) who had a sleep clinic appointment between September 20th, 2020 and March 21st, 2021. Statistical analysis was performed using the two-sided chi-square test with a 5% significance level.

**Results:** The overall rate of non-attendance was 10.8%. The rates of non-attendance between new and review cases were similar. Being single (odds ratio [OR]: 2.49;  $p = 0.010$ ), middle-aged (OR: 4.39;  $p < 0.001$  vs. older-aged), or female (OR: 2.08;  $p = 0.026$ ) was associated with a higher rate of non-attendance. English was the primary language for all non-attenders. A higher proportion of non-attenders than attenders were born in Australia. For new cases, the source of referral, reason for referral, and triage category did not affect attendance rates. Likewise, the patient's primary sleep disorder and treatment status did not affect attendance for review cases.

**Conclusion:** Factors associated with non-attendance at an outpatient sleep clinic include being single, middle-aged, or female. By identifying patients at higher risk of clinic non-attendance, a more tailored approach can be developed to mitigate this issue.

**P072****THE ASSOCIATION BETWEEN SNORING AND HEARING LOSS IN PATIENTS WITH OBSTRUCTIVE SLEEP APNOEA***Lawton E<sup>1,2,3</sup>, Jurisevic M<sup>1</sup>, Hobart K<sup>1,2</sup>, Polasek J<sup>1,3</sup>, Fon A<sup>1,3</sup>*<sup>1</sup>The Queen Elizabeth Hospital, Adelaide, Australia, <sup>2</sup>The Royal Adelaide Hospital, Adelaide, Australia, <sup>3</sup>School Of Medicine University of Adelaide, Adelaide, Australia

**Background:** Snoring is the commonest symptom of OSA, occurring in 70%-95% of patients. Snoring noise in severe OSA can reach, and exceed, peaks of 80 decibels(dB). This is a noise level at which permanent hearing loss can occur.

Given the chronicity of OSA, patients may be exposed to harmful noise levels daily for many years.

**Methods:** All patients underwent an overnight diagnostic sleep study. Exclusion criteria included occupational noise exposure or previously diagnosed hearing loss or head injury. Calibrated and standardised Tecpel 332 Sound-Pressure-Level meters recorded quantitative sound data. In addition to standard analysis and reporting, a customised report generated snoring and sound indices during sleep time.

Participants then underwent otoscopy, tympanogram and pure tone audiometric examination.

Progress to Date

To date 14 eligible patients have been enrolled. 3/14 have completed all investigations. 3/3 have hearing loss. AHI range was 8.5–39.5 and maximum snore sound range was 78.4–98.3dB. The average snores per hour was 340.3 and mean total snores during sleep time 1741. Mean oxygen saturation nadir 87.6%.

These initial results suggest a correlation between snore noise and hearing loss. We aim to include 25 patients in this pilot study.

Intended Outcome and impact

We hypothesise a direct relationship between snoring loudness and exposure in patients with OSA, and hearing loss due to prolonged noise exposure.

Noise-induced hearing loss is irreversible, but the extent of loss may be reduced with intervention. This pilot study has the potential to benefit patients by demonstrating the effects of snoring in OSA on hearing.

**P073****CO-MORBID INSOMNIA AND OBSTRUCTIVE SLEEP APNOEA IS ASSOCIATED WITH ALL-CAUSE MORTALITY AND CARDIOVASCULAR EVENT RISK***Lechat B<sup>1</sup>, Appleton S<sup>1</sup>, Melaku Y<sup>1</sup>, Hansen K<sup>2</sup>, McEvoy R<sup>1</sup>, Adams R<sup>1</sup>, Catcheside P<sup>1</sup>, Lack L<sup>3</sup>, Eckert D<sup>1</sup>, Sweetman A<sup>1</sup>*<sup>1</sup>Adelaide Institute for Sleep Health and FHMRI Sleep Health, Flinders University, Adelaide, Australia, <sup>2</sup>College of Science and Engineering, Flinders University, Adelaide, Australia, <sup>3</sup>College of Education Psychology and Social Work, Flinders University, Adelaide, Australia

**Introduction:** Co-morbid insomnia and sleep apnoea (COMISA) is a highly prevalent and debilitating condition. Previous studies have investigated associations between insomnia and mortality, and OSA and mortality, but not COMISA. Thus, this study investigated associations between OSA, insomnia and COMISA on mortality and cardiovascular event risks.

**Methods:** Sleep Heart Health Study data ( $n = 5803$ ) were used to identify people with insomnia defined as difficulties falling asleep, maintaining sleep, and/or early morning awakenings from sleep at least 5 times a month and daytime impairment. OSA was defined as an apnoea-hypopnoea index  $\geq 15$  events/h. COMISA was defined if both conditions were present. Cox proportional hazard models were used to determine the association between COMISA and all-cause mortality ( $n = 1210$ ) and cardiovascular events ( $N = 1243$ ) over 15 years of follow-up.

**Results:** This analysis included 5236 participants. 2504 (47.8%) did not have insomnia/OSA, 374 (7.1%) had insomnia-alone, 2027 (38.7%) had OSA-alone, and 331 (6.3%) had COMISA. Compared to participants with no insomnia/OSA, COMISA was associated with a 32% (HR, 95%CI: 1.32 (1.06, 1.64)) and 38% (1.38 (1.11, 1.71)) increased risk of mortality and cardiovascular events, respectively. Insomnia-alone and OSA-alone were not associated with all-cause mortality or cardiovascular event risk.

**Conclusions:** Participants with COMISA have decreased longevity and increased cardiovascular event risks compared to participants with no insomnia or OSA. It remains to be determined if these associations are causal and whether treatment of insomnia, OSA, or combination treatment can effectively decrease mortality and/or cardiovascular event risks in individuals with COMISA.