

Sleep Deprivation in Individuals with Visual Impairment (VI)

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Impact of sleep deprivation



Commonly reported causes of sleep deprivation



https://cpaprx.com/sleep-health-101-infographic/

What about sleep deprivation in people with VI?



Estimated global prevalence of sleep deprivation



In the general population



In people with VI

Based on the existing literature, people with VI, especially those with no light perception, are more likely to have sleep problems compared to those with normal vision. The limited access to light leads to misalignment in circadian rhythms.

What other factors contribute to poor sleep*?*



Light / noise / temperature / time outdoors?



VI severity? Ocular disease type?



Caffeine intake, diet?



Intrinsically photosensitive retinal ganglion cells (ipRGCs)

METHODS: From November 2023-May 2024 I have engaged with patient and public involvement (PPI) groups to explore the impact of sleep on people with VI. I have attended many VI support groups and collaborated with VI charities such as the RNIB, Macular Society & Angel Eyes. Through attendance at PPI sessions, participants were asked to complete the validated Insomnia Severity Index (ISI) sleep questionnaire with additional questions on their VI.

RESULTS: Among 28 people with VI who completed the ISI questionnaire, 64.3% (17/28) showed moderate to severe clinically significant insomnia. Additionally, 10.7% had subthreshold insomnia, while 25% did not display clinically significant insomnia. The sample included 12 males (42.9%) and featured a variety of eye conditions such as inherited retinal diseases (e.g., retinitis pigmentosa, Usher syndrome), age-related macular degeneration, congenital cataract etc. Some participants previously tried melatonin to help them sleep but discontinued its use due to ineffectiveness and experiencing nightmares.

CONCLUSION: There are many unanswered questions with regards to sleep deprivation and VI. Exploring and devising effective sleep interventions for people with VI and raising awareness about this issue is important for future research.