

POSTER

ROCKED TO SLEEP OR RATTLED AWAKE? A SCIENTIFIC LOOK AT SLEEPING ON NIGHT TRAINS

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ABSTRACT

This research investigates the intricate dynamics of sleep quality experienced by passengers traveling on night trains. We employed a comprehensive methodology that integrates subjective sleep assessments with objective physiological measurements. Night trains constitute a unique transportation mode, potentially offering travelers a practical and sleep-compatible setting that allows for the confluence of travel and rest, optimizing both time and financial resources. However, to date little is known about the sleep quality on night trains.

To investigate how environmental variables affect sleep quality, we measured light conditions, temperature, environmental noise, movement, and humidity to continually monitor the environmental conditions. Sleeping accommodations in this study include sleeping cars, couchette cars, and private mini-cabins. Additionally, we measured blood pressure, heart rate, heart rate variability, and skin conductance to monitor the quality of sleep. This allows us to link sleep disturbances to environmental triggers. 27 participants (11 women, 17 men), aged 19 – 52 took on average 5 trips (total 127 trips) in private and shared cabins. Sleep quality on the night train shows higher variation than sleeping at home.

Considering the increasing public awareness of sleep as a vital component of overall well-being it is crucial to scrutinize the factors influencing sleep quality. Our data shows which factors influence sleep quality most and our results provide the basis for the development of recommendations to optimize the night train experience.

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