

A Study on Poor Sleep Hygiene and Obesity among Different Groups of Workers in the Petroleum Industry Located in Andhra Pradesh

Sagam Dinesh Reddy*

LMR Hospital, G Konduru, NTR District, Andhra Pradesh, India.

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ABSTRACT

Sleep hygiene, defined as practices and habits that promote good sleep quality, plays a critical role in overall health. Poor sleep hygiene has been increasingly linked to obesity, yet its occupational determinants remain underexplored. This study investigates the relationship between poor sleep hygiene and obesity among petroleum industry workers in Andhra Pradesh, focusing on tank drivers and office workers.

A cross-sectional comparative study was conducted with 283 male workers (193 tank drivers and 90 office workers). Data on sleep duration, BMI (Body Mass Index), and work schedules were collected through self-reported questionnaires and verified using health records. Independent t-tests and the Mann-Whitney U test were employed to analyze differences in sleep duration, BMI, and age between the two groups.

The results demonstrated statistically significant differences in sleep duration and BMI. Tank drivers had shorter sleep duration ($M = 5.32$ h) and higher BMI ($M = 27.0$) than office workers ($M = 6.58$ h, $BMI = 25.0$), with $p < 0.0001$. Occupational factors such as shift work, long working hours, and disrupted circadian rhythms were identified as key contributors to sleep deprivation and obesity.

The findings highlight the urgent need for occupational health interventions. Implementing structured sleep hygiene education, optimizing shift schedules, and workplace wellness programs can help mitigate obesity risks among petroleum industry workers. Addressing occupational stressors and sleep disruptions is essential for improving worker health and productivity.

Keywords: Sleep hygiene, Obesity, Occupational health, Shift work, Petroleum industry

Abbreviations: BMI: Body Mass Index

Corresponding author: Sagam Dinesh Reddy, LMR Hospital, G Konduru, NTR District, Andhra Pradesh, India, E-mail: dineshsagam143@gmail.com

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