



Sleep in Correlation with Chronic Pain: A Patient Survey

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INTRODUCTION

Chronic pain significantly affects the quality of life of around 50.2 million people in the US.¹ There is a growing body of literature on the link between sleep and pain. Many studies have concluded that pain and sleep have a bidirectional relationship, where poor sleep results in worse pain, and pain disrupts sleep.² Chronic pain is highly associated with diminished sleep health, and about 50% of people with insomnia report chronic pain.³ Additionally, medications such as opioids can trigger sleep disturbances.⁴ Insufficient sleep has been shown to lower pain thresholds and increase pain sensitivity. These research efforts suggest that sleep may impact physiological processes that drive chronic pain.^{5,6}

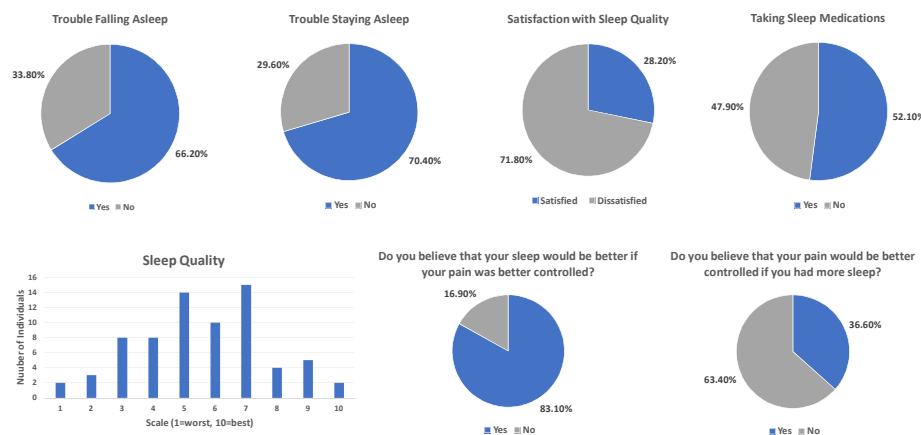
GOALS

Our study is aimed at understanding the sleep health of chronic pain patients and elucidating patient perspectives on the relationship between their sleep and chronic pain. In order to provide the best possible pain relief, we must take into account each patient's sleep in addition to their pain symptoms.

METHODS

Chronic pain patients (n=71) were selected due to being established patients in the clinic, for four months or longer. Each patient was asked 16 questions during in-person pain management clinic visits. Family members or caregivers of the patients assisted in confirming their responses. The questions were selected to help provide a thorough overview of each patient's personal experiences with sleep and sleep disorders. Included in the survey were questions that enabled patients to express their views on how sleep affects their pain.

RESULTS



- Our findings confirm that a significant number of chronic pain patients deal with sleep disturbance and diminished sleep health. 71.8% of patients are dissatisfied with their current sleep pattern, stating that they do not feel well-rested when they wake up. Patients reported an average of 6.32 hours of sleep each night and rated their average sleep quality as 5.66 out of 10.
- Sleep apnea and restless leg syndrome affect 33.8% and 62% of patients respectively. Additionally, 52.1% of patients take sleep medications.
- 56.3% of patients state that their sleep disturbance interferes with their daily functioning. 40.8% of patients have difficulty completing daily activities due to fatigue. 39.4% of patients report trouble remembering details, concentrating, and staying awake during the day because of poor sleep quality.
- 83.1% of patients believe that if their pain was better controlled, their sleep would improve. This revealed that patients saw their pain as a primary disruptor of their sleep.

CONCLUSIONS

Although prior research suggests that poor sleep correlates to greater pain severity, 63.4% of patients claim that their pain would not be better controlled if they had more sleep. The perception by chronic pain patients that more sleep would not impact pain conflicts with the current scientific consensus that sleep disturbances lead to increased pain sensitivity. A prospective study of treating both sleep and pain concurrently would help provide a better understanding of the relationship between both factors. This would also help in choosing effective treatment options personalized to each individual.

After surveying the sleep quality of patients, we noted that 33.8% of patients stated that they have sleep apnea. However, only 20.8% of these patients stated that they are using a CPAP machine regularly. Since the majority of patients were not adequately treated for sleep apnea, this revealed a significant disparity that should be carefully considered. An important step forward would be incorporating a detailed sleep questionnaire in every patient's appointment. Furthermore, the availability of sleep health educational resources and collaboration with sleep specialists could enhance CPAP adherence and overall sleep hygiene.

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