

Introduction

Hospitalized patients commonly experience disrupted sleep, which can lead to deleterious mental and physical effects including delirium, cognitive impairment, hypertension, impaired immune function and wound healing¹. The causes of sleep disruption in hospitalized patients are multifactorial, including patient specific factors such as pain or anxiety, environmental factors such as light and noise, and staff specific, such as overnight nursing or other patient care.

Methods

We aimed to characterize (1) self-reported sleep quality and (2) contributors to sleep disruption for patients hospitalized on a general medicine floor in an academic medical center through use of patient surveys. The survey was a modified version of the Richards-Campbell Sleep Questionnaire (RCSQ)². Inclusion criteria was a Modified Early Warning Scores ≤ 3 . We created a sleep hygiene protocol consisting of melatonin, avoidance of nighttime vitals from 10pm-6am and minimizing needing to enter patients room assessed impact on subjective sleep quality.

Results

30 patients were surveyed in the initial survey and reported pain, noise/sleep interruptions by hospital staff, and light as the most common causes of poor sleep in the hospital setting. The sleep hygiene protocol was applied to a separate sample of 11 patients in shared rooms who subsequently reported that noises from roommates/other patients and light remained barriers to sleep quality. Most patients (81%) accepted melatonin when offered but overall scores in sleep depth, falling asleep, number of awakenings, % of time awake, sleep quality, and noise level remained similar between patients in the sleep hygiene protocol group and those not.

Fig 1: Nursing Perspective of overnight disturbances

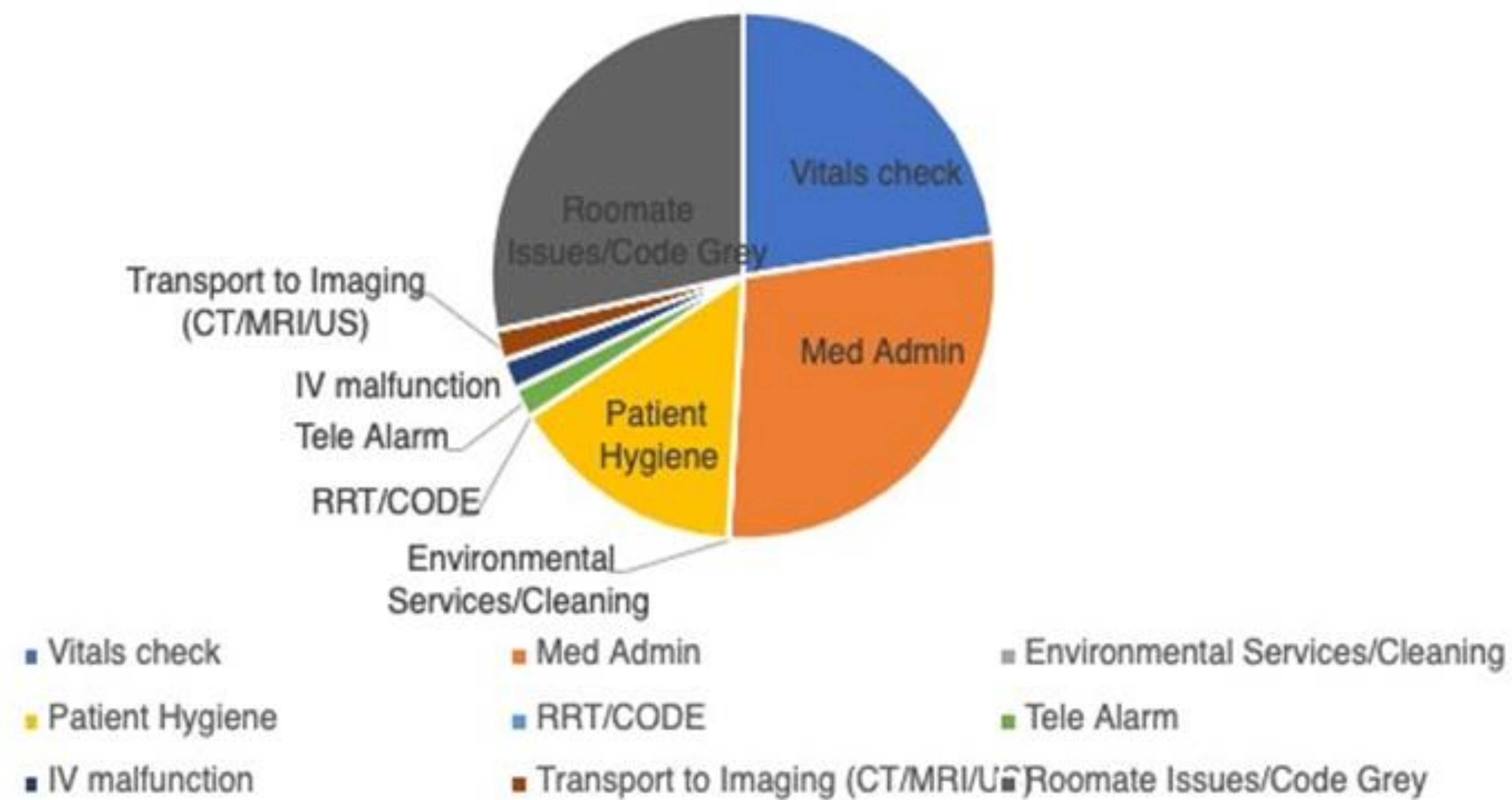
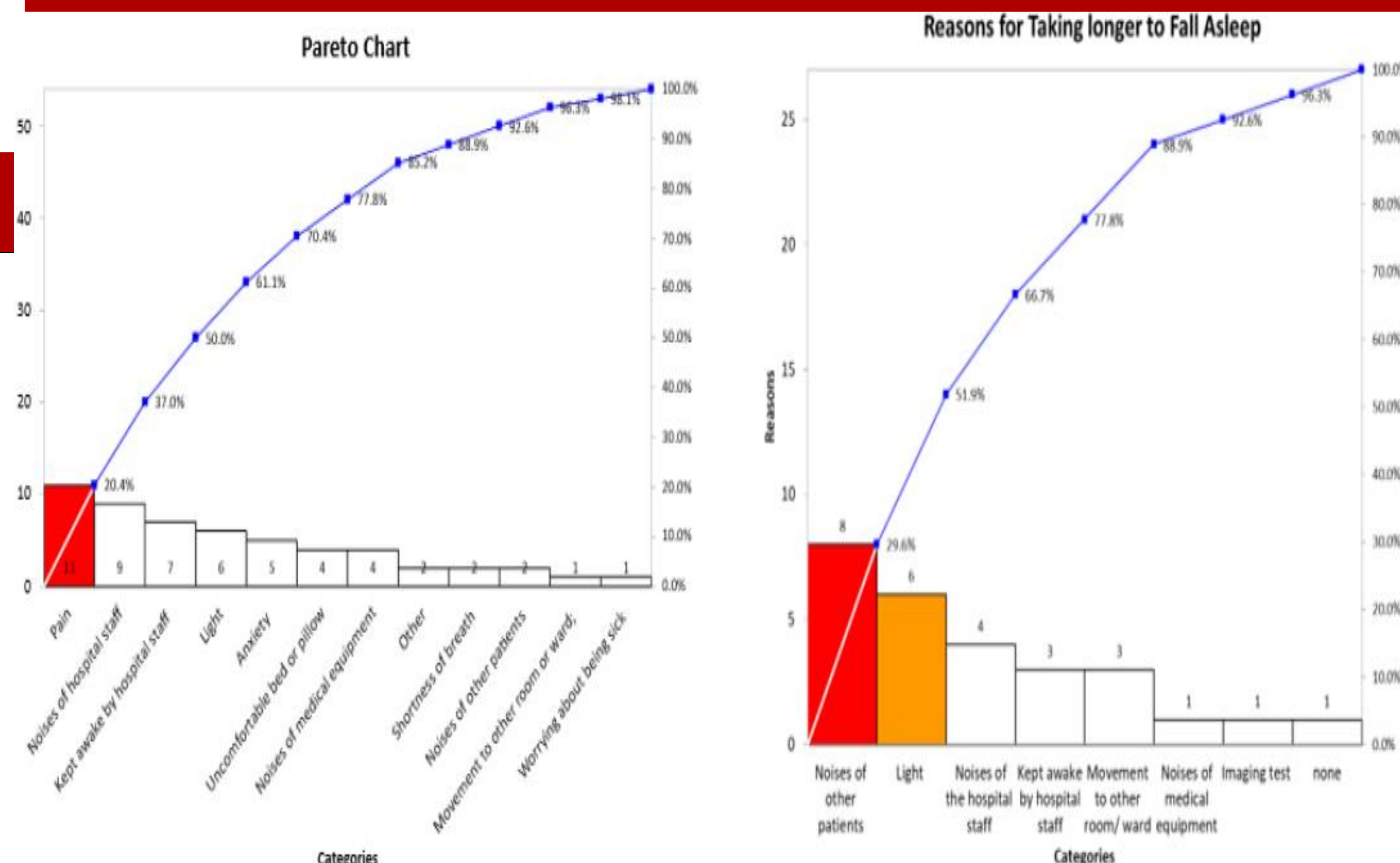


Fig 2: Pre- and Post-Intervention Patient Surveys



Conclusions

Implementation of sleep hygiene interventions can be successful when jointly pursued by physicians, nursing, nursing administration, and personal care assistants. Our sleep hygiene protocol of minimizing vital signs and offering melatonin did not appreciably improve sleep efficiency indices, which highlights the multifactorial nature of sleep disruption in the hospital setting. Sleep disruption remains a serious issue in hospitalized patients requiring additional investigations to determine the best interventions to address it. Further directions of research to pursue include building an integrated sleep hygiene order set into the electronic medical record system to reduce barriers for implementation.

References

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