

7-15-2021

## The Effect of Mindfulness Meditation on Sleep Quality

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## Introduction

**Purpose:** The purpose of this research is to evaluate the effect that meditation has on the quality of sleep for registered nurses.

**PICOT Question:**

What effect does meditation prior to sleep have on a nurse's quality of sleep as compared to no meditation?

## Evidence

As new nurses on night shift, one of the largest struggles Crystal and I found with night orientation was adjusting to a new sleep schedule. Although orientation touched on sleep changes, we thought it may benefit future nurses to have more resources and strategies available to adapt to this new sleep-wake cycle.

### Literature Review:

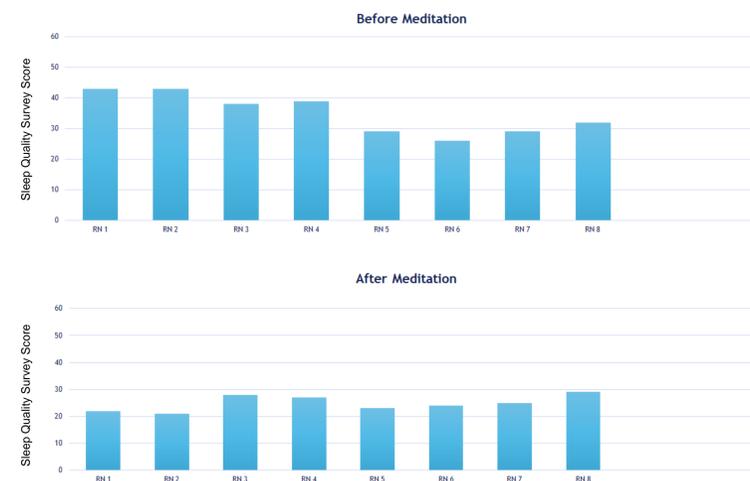
- Research shows mindfulness meditation can improve sleep in many different clinical populations.
- Sleep disturbance is also a common public health issue; 6%-20% of adults suffer from some form of sleep disturbance.
- Quality of life can be negatively by poor sleep quality for both individuals and society as a whole.
- Healthcare workers experience many factors that can hinder sleep quality, including added stressors at work.
- On follow-up with participants, mindfulness meditation can be as effective at improving sleep quality as other evidence-based treatments, as well as have long-term effects on improved sleep quality.
- Objective and subjective sleep quality measures improved in pediatric healthcare workers who practiced mindfulness meditation for eight weeks.
- Mindfulness meditation reduced total wake time in participants experiencing insomnia, showing that meditation can be effective in improving sleep to those with chronic insomnia

## Methods

- Nurses filled out a Sleep Quality Survey upon sign-up prior to intervention implementation. A packet was then given that included instructions for project completion, as well as a calendar to record days the intervention was performed.
- Nurses were then e-mailed both an article explaining mindfulness meditation in addition to a video example. Mindfulness meditation was then to be performed for 15 minutes prior to sleep each day for one month.
- After the month, the participant then completed another sleep quality survey. This survey and the completed calendar were then turned in.
- Marks on the survey were then tallied via a 0-3 score-based system and averaged for both the pre and post intervention surveys. These averages were compared to identify if sleep quality had improved in this sample over the past month.
- The number of days individuals actually completed the intervention over the course of the month were also looked at and averaged to determine the viability of prolonged use of mindfulness meditation as an intervention for poor sleep.

## Results

Per the developers of the Sleep Quality Survey, a higher score denotes more acute sleep issues.



Least amount of days meditated: 7/31 days

Average number of days of meditation: 11.6= 12/31 days

Most amount of days meditated: 21/31 days

## Next Steps

The original goal of this project was to include information about mindfulness meditation prior to sleep to help newly orienting nurses develop good sleeping habits, especially for new night-shift staff. Ideally, this information could be implemented into orientation packets for newly-hired nurses. However, because the sample size of this research was so small, this project may benefit from further research with a larger sample size to confirm the results of this smaller study.

As a group, we are finding it difficult to find the time to continue any further research at this point, but would be absolutely willing to share information and strategies to any other groups who may wish to explore this issue further.

## Conclusions

In conclusion, after careful evaluation of the data collected by the participants, meditation did improve the quality of sleep for the registered nurses that participated.

Registered nurses took part in a survey in which they described their quality of sleep both before and after meditation. In the end, the researchers followed guidelines to tally a total score based on the answers the participants provided and showed that practicing meditation before sleep improved the quality of sleep for nurses. This is demonstrated in the decrease in scores shown in the graph to the left after meditation was implemented.

It can also be concluded that the more days spent meditating the greater the improvement in quality of sleep. RN 1 meditated 21 out of 31 days and showed the greatest decrease in score- consistent with better quality of sleep. Overall, meditation is a great tool to improve sleep for registered nurses.

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