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Counting Sheep & Counting ZZZs: A Therapeutic Approach to Better Sleep Hygiene

Cameron Burke

University of Vermont Larner College of Medicine

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Counting Sheep & Counting ZZZs

A therapeutic approach to better sleep hygiene

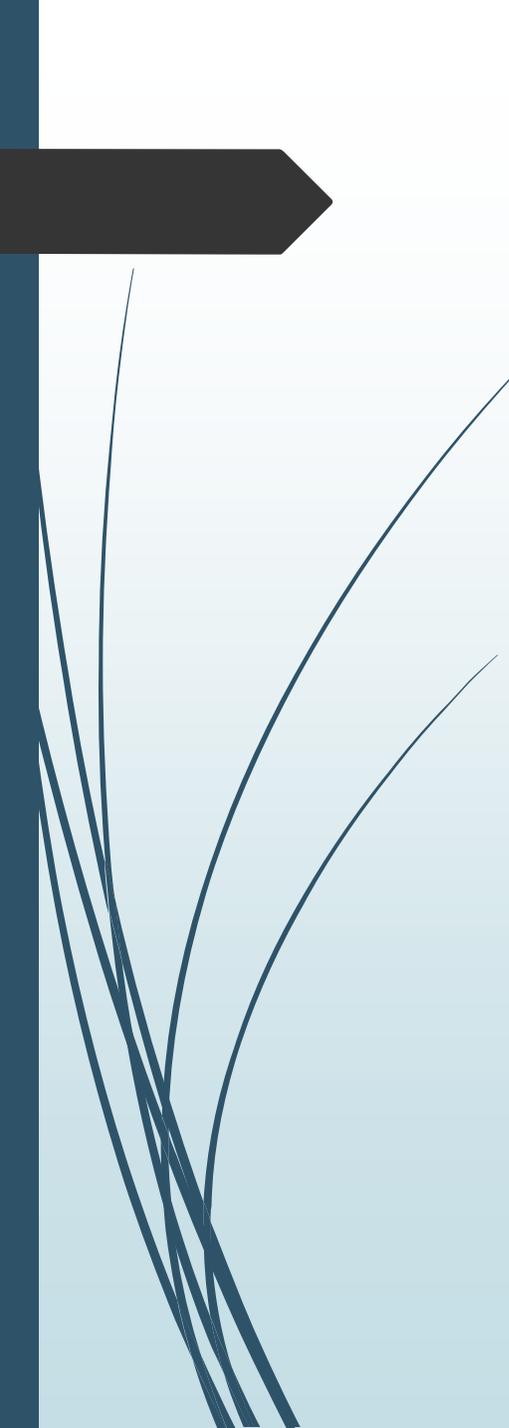
Cameron Burke, MS-3

University of Vermont Larner College of Medicine

New Milford, CT

October-November 2019

Dr. Peter Anderson



Problem Identification & Description

The National Sleep Foundation recommends 7-9 hours of sleep per night for adults aged 18-64, and 7-8 hours of sleep for adults aged 65 and older, but over 30% of US adults report getting less than this recommended amount. Insufficient sleep has been associated with a variety of adverse health consequences including increased rates of cardiovascular disease, obesity, immunosuppression, drowsy-driving/motor vehicle collisions, and all-cause mortality, in addition to a self-reported decreased quality of life.

The CDC has recently called sleep deprivation a public health problem and despite being so widespread, many patients who report that they aren't getting enough sleep have difficulty actually achieving the sleep they need, either in terms of quantity or quality of sleep. To overcome this barrier, I will create and distribute educational materials describing how to improve sleep both holistically as well as through sleep-restriction therapy.



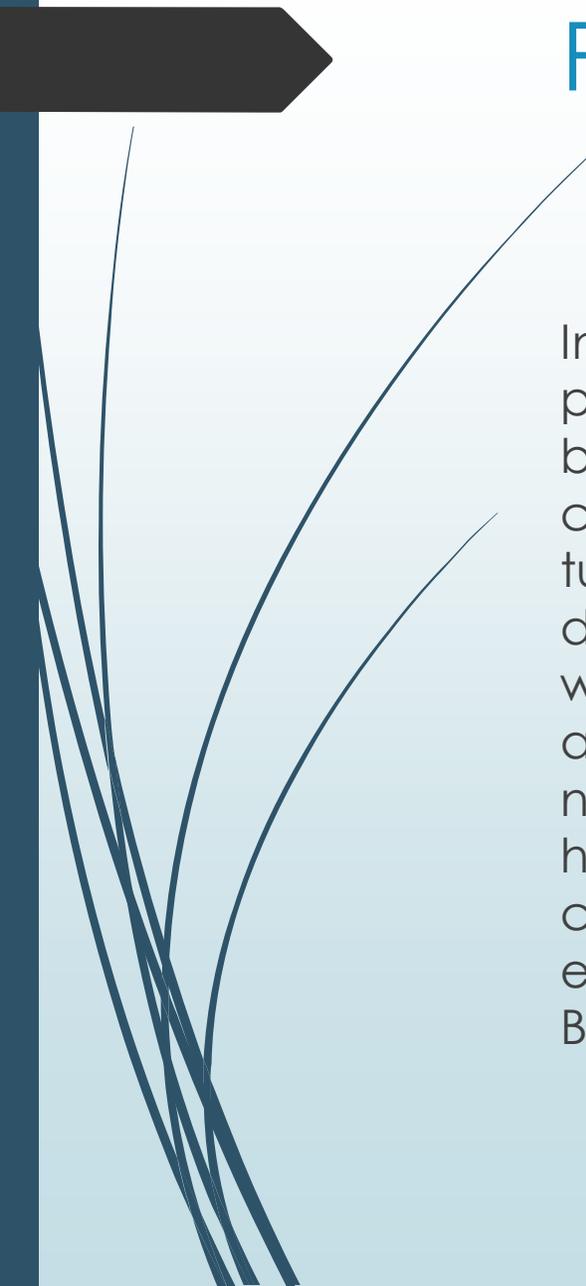
Public Health Cost

- ▶ The United States loses the equivalent of ~1.23 million working days due to insufficient sleep, representing an economic cost between \$280-\$411 billion per year
- ▶ Beyond economic costs, sleep loss has been implicated in innumerable traffic accidents, industrial accidents, medical errors, and other catastrophes, including, but not limited to the Chernobyl nuclear explosion, the Exxon Valdez spill, and the Space Shuttle Challenger tragedy
- ▶ While not formally enumerated, at New Milford Hospital in Western Connecticut many patients report problems with achieving sufficient sleep. While we have not studied the exact economic impact of this sleep loss, the self-reported decrease in quality of life for these patients alone warrants an attempt at intervention



Perspectives by Dr. Peter Anderson

In interviewing Dr. Anderson, he expressed that he encounters people with sleep problems very commonly, at least daily, most commonly in elderly patients who experience sleep fragmentation. For most patients experiencing sleep difficulty he provides some education around sleep hygiene and instructs them to avoid medications taken for the purpose of inducing sleep as they can be helpful in the short term but can be hard to stop once someone becomes accustomed to taking them on a regular basis. He emphasizes that it is also important to find the underlying cause of the sleeping problem and to address this first, while sometimes referring the patient to a sleep specialist in cases where they might have obstructive sleep apnea, restless leg syndrome, sleep walking, or severe depression.

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Perspectives by Dr. Abra Mabasa

In interviewing Dr. Mabasa, she reported that she sees patients mention sleep problems in nearly 75% of her patient appointments as it is so easily affected by other conditions. Whether a patient is experiencing neck pain or even a cold, these end up impacting the patient's ability to sleep at night, which in turn contributes to fatigue, impaired concentration and memory, and decreased ability to function in their daily activities. When patients present with reports of primary sleep problems, she starts by teaching the patient about sleep hygiene and ways to improve it, such as avoiding exercise late at night and making sure to use the bed for sleep or intercourse only. Poor sleep hygiene is very common and many patients can benefit from making small changes in their nightly routines to improve their sleep, but when this is not enough, she will sometimes consider recommending products such as Benadryl or chamomile tea as these can be helpful with minimal side effects.



Intervention and Methodology

- ▶ To address insufficient sleep and work towards resolution, I designed an educational brochure that includes information regarding:
 - ▶ Recommendations for quantity of sleep
 - ▶ How to improve sleep hygiene
 - ▶ Consequences of insufficient sleep
 - ▶ Medications often used as sleep aids
 - ▶ Sleep restriction therapy
- ▶ This brochure will be distributed to patients who experience insufficient sleep alongside a sample sleep diary table and instructions detailing how to use sleep restriction therapy to improve quality and quantity of sleep



Results/Responses



- ▶ Initial response to the brochure and sleep diary was largely positive. Patients found the information to be clear and helpful, and they were interested in using the sleep diary to document how much sleep they were actually getting at night. Sleep Restriction Therapy was a novel concept to all the patients I met with but they were excited to attempt a non-pharmaceutical treatment to improve their sleep
- ▶ Due to the short length of the Family Medicine Clerkship, I was unable to stay and assess the outcome in patients who kept a sleep diary and underwent sleeprestriction therapy, but I provided brochures and diaries to the staff at New Milford Hospital so that they could continue providing them to interested patients



Evaluation of Effectiveness & Limitations

- ▶ In evaluating the effectiveness of this intervention moving forward, we can look at objective measures such as an increase in number of hours slept per night, but perhaps the most useful assessment would be a qualitative report collecting patient assessments of their own perceived sleep changes, with the desired outcome being that they feel more alert, less sleepy, and happier with their overall quality of life.
- ▶ The largest limitation in evaluating the effectiveness of this brochure and sleep diary is that successful implementation of Sleep Restriction Therapy takes time, and it is difficult to quantify a person's subjective feelings around their sleeping habits. However, in patients who experience difficulty sleeping, any reported improvement would be a positive change.

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Recommendations for future

- ▶ When using this intervention moving forward, I would recommend
 - ▶ An initial appointment with the patient to assess current sleep status and explain Sleep Restriction Therapy
 - ▶ A 2 week follow up appointment to review their sleep diary
 - ▶ A 4 week follow up appointment to assess initial response to sleep restriction
 - ▶ A 8 week follow up appointment to assess changes in quantity/quality of sleep
 - ▶ Future follow up as needed

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