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Abstract: Sleep is an essential part of our daily life when our body is given the opportunity to heal itself, and recalibrate. Disruption of the regular, consistent sleep pattern is insomnia. Insomnia is a disorder where people are unable to fall asleep, stay asleep, or wake up earlier than planned, thus leading to daytime fatigue, ultimately not allowing the body the opportunity to heal itself. Chronic insomnia leads to cognitive decline and memory impairment, severe psychiatric disorders (1), certain cancers, and cardiac issues (2), and lower metabolism (3), among many other diseases. There is a myriad of ways to treat insomnia, including cognitive behavioral therapy (CBT), benzodiazepines which are drugs used to induce relaxation, and a combination of both CBT and other prescription drugs such as Trazodone. However, benzodiazepines and other prescription drugs can be subject to abuse, have major side effects, and also lead to death in some cases, in addition to being very expensive. As such, cognitive behavioral therapy (CBT) with its broad and holistic approach for patients, is not only the most effective solution for long term chronic insomnia, but is also the least expensive, and has been shown to have sustained long-term for patients with chronic insomnia, ultimately allowing the body to heal itself.

Methods: In carrying out this project, a broad literature search was completed targeting over 20 articles regarding chronic insomnia and different treatments. PubMed search engines were used to target articles with keywords “insomnia,” “daytime fatigue,” “trazodone,” “CBT for insomnia,” and “yoga for insomnia.” This targeted approach to an article search allowed for a concise review of the current literature on the pathology of insomnia along with effective treatments.

Results: CBT using slow breathing techniques in addition to good sleep hygiene is a better tool in combating insomnia over pharmacotherapy (1). Patients using CBT long term had better sleep latency, efficacy, and total sleep time over patients using pharmacotherapy and a combination of CBT and pharmacotherapy (4). CBT itself was more effective at combating insomnia over using combined CBT and pharmacotherapy and pharmacotherapy by itself, allowing patients to sleep more effectively and gain better quality sleep (5). CBT allowed patients to fall asleep more quickly (67.2 minutes vs 23.4 minutes), awaken less throughout the night (2 vs. .4), sleep more efficiently (77.3 vs 91 %), have better quality falling asleep (3.2 vs 6), have better quality sleep (3.3 vs 5.8), and have better quality morning awakenings (3.2 vs 6) (6). Trazodone combined with CBT increased slow wave sleep duration compared to CBT alone, shortened sleep latency ($p=.03$), increased sleep efficiency ($p=.004$), and prolonged sleep time ($p=.006$) (7). Yoga is also shown to significantly increase quality of sleep for women with major sleeping disorders (8).

Conclusion: CBT by itself is very effective in managing chronic insomnia with its holistic, patient-centered approach, and should be the first line intervention given its low-cost, long-term efficacy and sustainability, and lack of side effects. In this way, patients can empower themselves without having to rely on pharmacotherapy which can be expensive, and also lead to dangerous side effects. However, in the event of using pharmacotherapy, Trazodone along with CBT has been shown to improve sleep quality in patients. Through this approach, we hope that

patients will more proactively engage in their health to tackle their chronic insomnia, while using medication as a last resort given its cost, potential for abuse, and adverse side effects.

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