



## NO BENZO: INCULCATING HEALTHY SLEEP HYGIENE

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## KEYWORDS :

The epidemic of opioid addiction and overdose is frontpage news currently. It has led to concerted efforts to reduce overprescribing of opioids, a major cause of the current opioid crisis facing the nation. However, there is one other major drug class overprescribing, which has not garnered similar attention-the inappropriate prescribing of benzodiazepines, like alprazolam, clonazepam, diazepam, and lorazepam. The Food and Drug Administration (FDA) has approved benzodiazepines for a diverse set of clinical indications, including for sleeplessness and insomnia, but also for anxiety, seizures, and acute alcohol withdrawal, and also prescribed off-label for restless legs syndrome and depression.

In 2012, prescribers in the United States wrote approximately 37.6 benzodiazepine prescriptions per 100 population. Alprazolam, clonazepam, and lorazepam are among the ten most commonly prescribed psychotropic medications in the United States. Medicaid expenditures on benzodiazepines increased by nearly \$40 million between 1991 and 2009, even as the price of benzodiazepines generally fell, suggesting enhanced number of prescriptions. Despite the increased risk of overdose in patients taking both benzodiazepines and opioids, rates of coprescribing have nearly doubled, increasing from 9% in 2001 to 17% in 2013. Use of the newer so-called "z-drugs", like zolpidem and eszopiclone, alone or in combination with opioids, is associated with higher mortality.

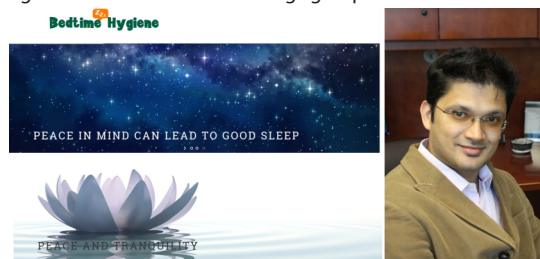
Per the National Institute on Drug Abuse, overdose deaths involving benzodiazepines increased from 1135 in 1999 to 8791 in 2015. Between 1996 and 2013, the number of adults who filled a benzodiazepine prescription elevated by 67%, from 8.1 million to 13.5 million, and the quantity of benzodiazepines they obtained more than tripled during that period, from 1.1-kg to 3.6-kg lorazepam-equivalents per 100,000 adults. Nevertheless, the adverse effects of benzodiazepine overuse, misuse, and addiction continue to be underappreciated. This issue is being brought to national and community attention by the pioneering work of Dr. Abhijit Ramanujam, a psychiatrist affiliated with the Woodland Medical Center in Sacramento. Dr. Ramanujam is using the web to disseminate the importance of good sleep hygiene ([www.bedtimehygiene.com](http://www.bedtimehygiene.com)). The background music of the website is so appropriate and soothing, and sets the tone for the take-home message. His app, "No Benzo", is a straightforward message to not use the benzodiazepines as a panacea for sleep deprivation and motivates and educates the individual for practicing good sleep hygiene. It is interesting to note that three quarters of deaths due to benzodiazepines also involve an opioid, which may explain why, in the context of a widely recognized opioid problem, the harms associated with benzodiazepines have been overlooked till the present.

Highly potent new forms of benzodiazepines are increasingly penetrating the illicit market. Manufactured in secret laboratories across the world, these drugs are indistinguishable from prescription benzodiazepines and are potentially as deadly as the synthetic opioid analogue fentanyl. Clonazolam, an analogue of clonazepam that is derivative of a combination of alprazolam and clonazepam, is so potent that it needs to be dosed at the microgram level using a high-precision scale to prevent accidental overdose. It can be bought on the Internet as a "research chemical" and shipped anywhere. The magnitude of the damages caused by illicit, high-

potency benzodiazepines has yet to be documented. Overprescribing of benzodiazepines may be fueling the use of illicit analogues, just as overprescribing of opioids has fueled increases in heroin and illicit fentanyl use.

Benzodiazepines have proven utility when they are used intermittently and for less than 1 month at a time. But when they are used daily and for extended periods, the benefits of benzodiazepines are considerably reduced and the risks associated with their use increase. Many prescribers don't realize that benzodiazepines can be addictive and when taken daily can worsen anxiety, contribute to persistent insomnia, instead of amelioration, and even cause death. Other risks associated with benzodiazepines include cognitive decline, accidental injuries and falls, especially in the elderly (who have a normal physiologic decline of the required hours for restorative sleep per night) and increased rates of hospital admission and emergency department visits. Fortunately, there are safer treatment alternatives for anxiety and insomnia, including selective serotonin-reuptake inhibitors and simple behavioral interventions. Dr. Ramanujam's robust endeavors in openly communicating these behavioral methods is commendable. The use of "computer assisted persuasive technology", abbreviated captology, to modify health behavior is setting the work of Dr. Ramanujam as "novel". With measured use and avoiding daily dosing of benzodiazepines will help mitigate the development of tolerance, dependence, and withdrawal. Dr. Ramanujam's smartphone app, "No Benzo", warns the layperson of not going for *doctor shopping* with benzodiazepines, a common practice to seek the same medication from multiple providers, significantly leading to the initiation of abuse.

Dr. Ramanujam is raising the discussion among clinicians and lay communities (including college goers) about the problem of overprescribing and overuse of benzodiazepines and z-drugs, or about the harm attributable to these drugs and their illicit analogues. This frontline endeavor is significantly addressing another massive drug abuse issue, mainly by motivating to adapt healthy sleep behavior using a few simple steps. Dr. Ramanujam has stressed the need for caregivers' to check their state's prescription drug monitoring program (PDMP) before prescribing benzodiazepines, as is often required with opioids. Dr. Ramanujam is a zealous and leading caregiver about deintensifying psychotropic medications and is a strong advocate of behavioral and cognitive therapy, including novel methods of mindfulness (for example, [www.adopthygge.com](http://www.adopthygge.com)). Prescription drug abuse is a worldwide problem of increasing concern to governments and the United Nations. Efforts such as that of Dr. Ramanujam is critical in bringing about changes in appropriate behavior and promoting a drug-free environment across all age groups.



**References**

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