

Sleep Stewardship

Sanjay Kalra^{1,2}, Madhur Verma³, Viny Kantroo⁴, Nitin Kapoor^{5,6}

Abstract

Sleep stewardship is a systematic effort to ensure relaxed and restorative sleep, by optimizing pre-sleep, intra-sleep and post-sleep environment and ambience, in a rational manner. It includes not only sleep hygiene and prevention of sleeping pill abuse, but also macro- and meso-level interventions to improve sleep quality. The person living with sleep disorder, their family, members of society, health care professionals, and policy makers: all have a role to play in sleep stewardship. Sleep stewardship is necessary to improve and maintain human health

Keywords: Lemborexant, obstructive sleep apnea, sedatives, sleep, sleep hygiene, tranquilizers, zolpidem.

DOI: <https://doi.org/10.47391/JPMA.25-03>

Introduction

The dictionary defines stewardship as “the careful and responsible management of something entrusted to one’s care.”¹ This concept has been used extensively in medicine. Examples include antibiotic stewardship, steroid stewardship and insulin stewardship.²⁻⁴ Sleep, a physiological feature of life, needs to be managed in order to ensure optimization of its benefits. Stewardship, therefore, is required for sleep as well.

Definition

We conceptualize sleep stewardship as a systematic effort to ensure relaxed and restorative sleep, by optimizing pre-sleep, intra-sleep and post-sleep environment and ambience, in a rational manner.

Scope And Spectrum

Sleep stewardship includes not only the pharmacological

.....
¹Department of Endocrinology, Bharti Hospital, Karnal, India; ²University Center for Research & Development, Chandigarh University, India, ³Department of Community/Family Medicine, All India Institute of Medical Sciences, Bathinda, India, ⁴Department of Respiratory, Critical care and Sleep Medicine, Indraprastha Apollo Hospitals, New Delhi, India, ⁵Department of Endocrinology, Diabetes and Metabolism, Christian Medical College, Vellore, India, ⁶Non communicable disease unit, Baker Heart and Diabetes Institute, Melbourne, Victoria, Australia

Correspondence: Sanjay Kalra. **Email:** brideknl@gmail.com

ORCID ID: 0000-0003-1308-121X

Table-1: Domains Of Sleep Stewardship.

Macro stewardship

- Sleep conducive environment
- Rules to limit noise pollution
- Rules to limit light exposure at night
- Use of day light saving time
- Use of

Meso stewardship

- Avoidance of late night events with loud music
- Social marketing campaigns on sleep health
- Awareness campaigns on substance abuse

Micro stewardship

- Basic rules of sleep hygiene
- Timely screening and diagnosis of sleep disorder
- Rational use of sleep medicines, if needed

treatment of sleep management, but the non-pharmacological aspects as well. Thus, it includes rational prescription and monitoring of sleep-inducing drugs, and all features of sleep hygiene.⁵ The concept also alludes to efforts to prevent misuse of and dependence on sleep-inducing drugs. Table 1 describes the various domains of sleep stewardship. The screening and management of obstructive sleep apnoea is a part of sleep stewardship, as is spreading awareness and advocacy about this syndrome. The concept also emphasizes the need for rational use of drugs such as lemborexant and zolpidem, while avoiding improper use of addictive drugs like benzodiazepines.

Responsibility And Role

Sleep stewardship is a multifaceted framework, which is the responsibility of all stakeholders. The person living with sleep disorder, their family, members of society, health care professionals, and policy makers: all have a role to play in sleep stewardship. Some of their potential interventions are listed in Table 2.

Influence And Impact

Sleep disorders are rapidly increasing clinical as well as public health challenge.⁶ Worsening this is the associated epidemic of sleeping pill abuse.⁷ It is a paradox that sleep disorders are under recognized and under treated, while substance abuse, in a misguided attempt to ensure sleep, is rampant. Sleep stewardship takes care of both these extremes. The primary care physician, as a sleep steward,

Table-2: Stakeholders Of Sleep

| Stakeholders | Roles and responsibilities |
|--------------------------------------|--|
| Policy makers and planners | Rules to regulation for <ul style="list-style-type: none"> • Minimization of light and noise pollution at night • Concordance of circadian rhythm with working hours, e.g. day light saving time |
| Physicians and paramedical personnel | <ul style="list-style-type: none"> • Timely screening and diagnosis of sleep disorders. • Use non-dependence forming treatment • Avoid use of dependence forming sleep including drug • Referral to specialist |
| Peers and public | <ul style="list-style-type: none"> • Reduce late night activities. Encourage "early to bed, early to rise" life styles |
| The person | <ul style="list-style-type: none"> • Follow rules of sleep hygiene. Avoid substance as use • Adhere to physician suggestions |

ensures early screening and diagnosis of disease, while preventing misuse of therapies and other interventions.⁸

The phrase 'sleep stewardship' lends itself to easy understanding and sharing. Therefore, it can be used in medical teaching, as well as in public awareness campaigns. It includes concepts such as sleep hygiene and 'saatvik sleep', and overlaps with metabolic medicine as well.

Summary

We suggest the use of sleep stewardship as an umbrella term to engage the public, as well as health care professionals in discussion about sleep health. This will focus attention on clinical care and research for persons living with sleep disorders. It will also attract public attention and help mobilize much required resources for optimization of sleep health

Disclaimer: None.

Conflict of Interest: None.

Source of Funding: None.

References

1. Stewardship. Available at: <https://www.merriam-webster.com/dictionary/stewardship>. Last accessed on 30 May 2024.
2. Glasziou P, Dartnell J, Biezen R, Morgan M, Manski-Nankervis JA. Antibiotic stewardship. *Australian Journal of General Practice* AJGP. 2022;51:15-20.
3. Kalra S, Kumar A, Sahay R. Steroid stewardship. *Indian J Endocrinol Metab*. 2022;26:13-6.
4. Kalra S, Sahay R, Tiwaskar M. Need for Insulin Stewardship Programmes. *The Journal of the Association of Physicians of India (JAPI)*. 2018;66:83-4.
5. Baranwal N, Phoebe KY, Siegel NS. Sleep physiology, pathophysiology, and sleep hygiene. *Prog Cardiovas Dis*. 2023; 77:59-69.
6. Irish LA, Kline CE, Gunn HE, Buysse DJ, Hall MH. The role of sleep hygiene in promoting public health: A review of empirical evidence. *Sleep Med. Rev*. 2015; 22:23-36.
7. Schepis TS, Wastila L, McCabe SE. Prescription tranquilizer/sedative misuse motives across the US population. *J Addict Med*. 2021;15:191-200.
8. Sousa A, Kalra S. Sleep hygiene and diabetes: Suggestions for primary care. *J Pak Med Assoc*. 2017;67:814-5.