If you suffer from insomnia, it is easy to be tempted by sleeping pills that promise to make it easier to fall asleep. With the advent of Z-drugs, which claim to have fewer side effects than previous sleeping pills, they tend to be over-prescribed. But are they safe? It is well known that many celebrities have died from sleeping pill overdoses in the past. The deaths of Marilyn Monroe, the American actress of the century, Heath Ledger, the Australian-born actor best known for his role as the Joker in The Dark Knight, and Michael Jackson, the pop star of the century, have also been linked to dependence on sleeping pills and drug overdoses for sleep.

When sleeping pills are taken for a long time, their effectiveness gradually decreases and the dose must be increased to achieve the same effect. This is called tolerance. In addition, dependence occurs when a person cannot sleep without sleeping pills. This problem of tolerance and dependence has been known for a long time. Surprisingly, recent studies have shown that long-term use of sleeping pills is not only associated with tolerance and dependence, but also with increased rates of physical illness and mortality. In 1979, Daniel F. Kripke of the University of California, San Diego, published the first study linking sleeping pills to increased mortality [1], and since then a significant number of studies have linked sleeping pills to increased mortality [2]. These studies have reported that prescription sleeping pills increase the incidence of several cancers and infectious diseases, as well as suicide rates. A study conducted in Taiwan using 10 years of National Health Insurance data reported a 2.08-fold increase in suicide or attempted suicide among those taking zolpidem compared with those not taking zolpidem [3]. In Korea, a study analyzing 12 years of data from the National Health Insurance Service reported that zolpidem prescriptions more than doubled the risk of suicide death during long-term follow-up [4], and also reported that the use of sleeping pills increased the incidence of dementia [5]. However, it remains unclear what specific mechanisms increase suicide mortality and increase dementia.

Wouldn't it be great if there was a sleeping pill that could help you sleep without side effects, tolerance, or dependence? But such an ideal sleeping pill does not exist—in fact, it is impossible. Because sleep is the result of circadian rhythms, we cannot reliably and sustainably get a good night’s sleep every night without sufficient light exposure and activity during the day.

Tolerance and dependence on sleeping pills can eventually lead to a cycle of needing more and more sleeping pills, which can be harmful to the body and mind by having the opposite effect to a healthy circadian rhythm. In addition, erratic behavior under the influence of sleeping pills can lead to problems such as binge eating or suicide. This is why sleep and chronobiology experts stress the dangers of sleeping pills. Correcting circadian rhythms regularly helps prevent and manage many psychiatric and physical illnesses, not just insomnia [6,7].

Funding Statement
This study was supported by the Korea Health 21 R&D Project funded by the National Research Foundation of Korea (2019R1A2C2084158).

Conflicts of Interest
The author has no potential conflicts of interest to disclose.

ORCID iD
Heon-Jeong Lee https://orcid.org/0000-0002-9560-2383
REFERENCES


