

Gamified Sleep-Tracking App Improves Sleep and Reduces Body Mass Index in Some Users

A recent study conducted by researchers at the University of Tsukuba revealed that the use of a gamified sleep-tracking mobile application led to improvements in sleep parameters and a reduction in body mass index (BMI) among some users. The study analyzed data from 2,063 individuals who used both the sleep-tracking game app Pokémon Sleep (Pokémon, Inc.) and the diet and weight management application ASKEN (Asken, Inc.) over 90 days.

Tsukuba, Japan—In recent years, mobile applications designed to monitor health-related behaviors have gained popularity, with several incorporating game-like features to boost user engagement and effectiveness. This study investigated the impact of such a gamified app on sleep parameters and body mass index (BMI).

Participants who consistently used Pokémon Sleep and ASKEN for at least 90 days were evaluated for changes in four key sleep parameters: total sleep time, sleep latency (the duration between going to bed and falling asleep), percentage of wake after sleep onset (%WASO), and bed-in time. Researchers also examined how improvements in these parameters correlated with changes in BMI, an indicator of obesity calculated using height and weight.

The findings showed that the average total sleep time increased by approximately 0.8 h (48 min), from 5.5 to 6.3 h, after 90 days of app usage. Although group-level changes in the other sleep parameters were modest, individual-level improvements were noted: 45.3% of participants increased total sleep time, 18.1% improved sleep latency, 24.4% reduced %WASO, and 21.3% adjusted their bed-in time.

Importantly, users who demonstrated improvements in total sleep time sleep latency, or bed-in time also tended to show a greater reduction in BMI compared with those who did not. Among these parameters, the improvement in sleep latency was associated with a statistically significant decrease in BMI.

These results suggest that incorporating gamification into sleep-tracking applications may not only enhance sleep behaviors but could also contribute to improved weight management. Further research is warranted to explore the long-term impact and underlying mechanisms of such interventions.

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Article

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