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Table of Contents

Blog 1	3
Title	3
Introduction	3
Public Health Problem	3
How Oura Ring is used for Health Promotion	4
Evidence That the Oura Ring Promotes Health	4
Critical Discussion	5
Addressing the Shortfalls	6
Conclusion.....	6
References	7
Blog 2.....	9
Title	9
Introduction	9
Public Health Problem	9
Description of the Designed Technology.....	10
How the Designed Technology Promotes Health	10
Critical Discussion	11
Addressing the Shortfalls	11
Conclusion.....	11
References.....	12

Blog 1

Title

Can wearable sleep technology improve sleep disorders? A critical evaluation of the Oura Ring.

Introduction

Sleep disorder is one of the growing public health problems that can affect both the mental and physical well-being of individuals. This blog critically evaluates the role of Oura Ring, one of the wearable devices, in developing the sleep cycle and in promoting better health of people.

Public Health Problem

Poor sleep can lead to different diseases such as:

- Heart disease.
- Depression.
- Diabetes.
- Obesity.
- Reduced capability of daily performance.

Around 25% of the UK population face several health problems due to sleeping disorders, which denotes that this is a serious public health problem (Mental Health UK, 2026). Therefore, it indicates that improving sleep health is crucial for maintaining quality of life and preventing different diseases; otherwise, it could be a serious health concern.

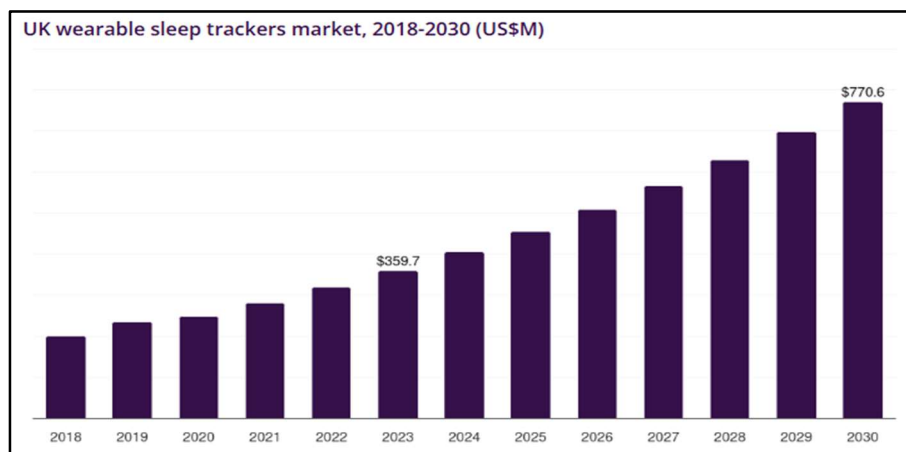


Figure 1: UK wearable sleep tracker market growth

(Source: Grand View Research, 2026)

How Oura Ring is used for Health Promotion

- Oura Ring, a wearable smart ring, monitors sleep cycle, heart rate, and daily activity and provides personalised health support using the mobile application (Oura, 2026).
- It also provides sleeping scores based on sleep time and provides tips for developing sleeping habits.



Figure 2: Oura Ring

(Source: Gibbs, 2026)

Evidence That the Oura Ring Promotes Health

Wearable sleep technology, including Oura Ring, can easily ensure a better sleep pattern and sleeping habits of people (Lujan et al., 2021). Around 41% of people in the UK use wearable sleep tracking devices for monitoring their sleeping cycle (Hobbs Independent, 2026). Evidence also shows that Oura Ring and other sleep-tracking wearables improves bedtime routine (Gan et al., 2022). According to the Theory of Planned Behaviour, the Oura Ring serves an individual's intention towards improving the sleep cycle that ensures good health. Therefore, it suggests that Oura Ring can easily support healthier lifestyles and promote better health of the population.



Figure3: Wearable sleep tracking watch

(Source: Hobbs Independent, 2026)

Critical Discussion

Oura Ring has different advantages, as it helps to monitor the sleep patterns of individuals, including personalised feedback for improving sleeping habits (Kuosmanen et al., 2022). Also, the portable design helps users use it easily. Additionally, this device makes people aware of their wrong sleeping pattern, which contributes to a better health outcome in the long run.



Figure 4: Oura Ring

(Source: Oura, 2025)

- In contrast, there are some limitations; as this device is quite expensive, it limits its accessibility to everyone.
- In addition, wearable devices like Oura Ring cannot replace medical devices due to their lower accuracy (Niela-Vilen et al., 2022).
- Data breach challenges could be one more limitation of this device, which could pose a threat to users.
- Therefore, being a useful digital health tool, the effectiveness of the Oura Ring highly depends on accuracy, affordability, and data security.

Addressing the Shortfalls

The Oura Ring could be improved by launching its low-cost variant and ensuring strong data security to prevent data breaches, which can ensure affordability and high customer trust at the same time, which will address the device's shortcomings.

Conclusion

Oura Ring is one of the effective devices for tracking and improving the sleeping cycle of people. However, its popularity and effectiveness depends on affordability, data privacy and accuracy.

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Blog 2

Title

Can AI improve sleep health? Designing SleepWell AI+ for the promotion of a better sleep.

Introduction

Sleep disorders are highly growing among the population and significantly impact the well-being and health of different people. Existing wearable technologies require more personalised support. This blog introduces the SleepWell AI+ that is designed by more advanced technology to improve overall health and ensuring healthy sleep.

Public Health Problem

Sleep disorders are one of the growing health problems; around 14 million UK people are suffering from sleep disorders (The Sleep Charity, 2024). Hence, a large number of people are suffering from different diseases such as:

- Diabetes
- Reduced daily-life performance
- Depression

The increased sleep disorder also creates pressure on healthcare organisations (Al-Hrinat et al., 2024). Therefore, better digital technologies are required for improving sleep quality, supporting healthy sleep habits and reducing long-term health impact.

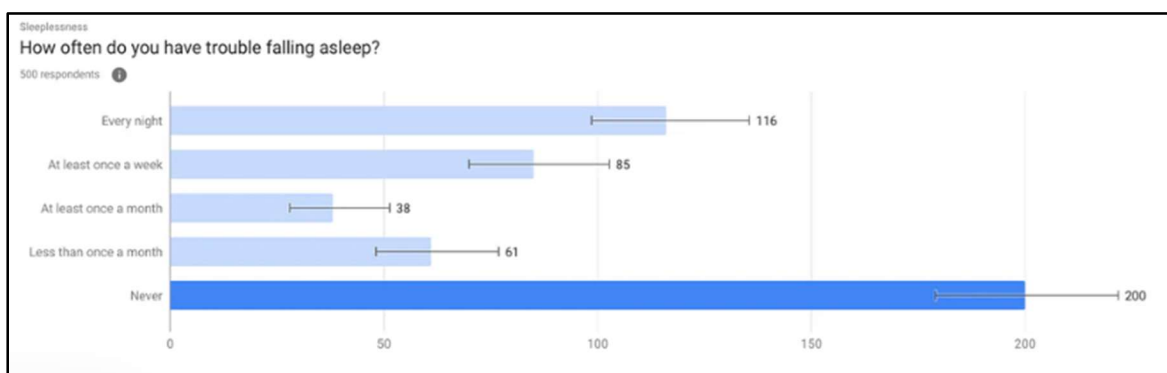


Figure 1: Sleeplessness rate

(Source: Linenbundle, 2019)

Description of the Designed Technology

SleepWell AI+ is one of the modified versions of the Oura Ring, designed to help people improve their health by analysing highly accurate sleep data. It integrates smart wearable technology with the AI-powered mobile application. Based on this gathered information through ring, the AI-powered mobile app provides bedtime reminders, personalised sleep advice, and healthy lifestyle advice for the improvement of overall health and sleep cycle (Wang et al., 2025). Users can easily share their sleep report with healthcare professionals using this device that makes the treatment process easier (Murala et al., 2023). Also, a simple interface design and smart alarms are helpful to improve its effectiveness.

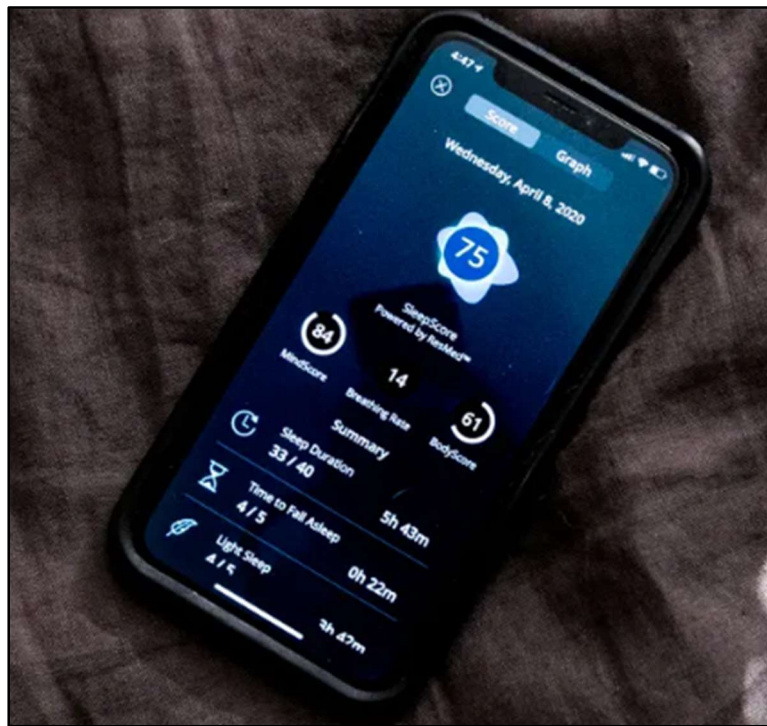


Figure 2: Mobile application for sleep tracking

(Source: New York Times, 2021)

How the Designed Technology Promotes Health

- SleepWell AI+ is helpful in developing the sleep cycle of users by providing personalised advice based on the daily sleep data.
- Also, the AI-based recommendations by this device are helpful to lifestyle quality and bedtime routines of individuals (Kalaichandran and Muralidharan, 2025).

- This device supports the COM-B behaviour change model by developing user capability through sleep awareness, creating opportunity with health reminders, and increasing motivation through progress reports (West and Michie, 2023).
- Utilising these features, SleepWell AI+ improves health and wellbeing.

Critical Discussion

- SleepWell AI+ has different advantages as it provides personalised sleep advice based on the health data of individuals that ensures better health conditions and improved sleep habits for everyone.
- Also, the smart reminders and progress reports motivate users to follow regular updates of sleep that will improve sleep habits in the long run (Oyebode et al., 2021).
- In addition, this device allows users to share sleep data while having healthcare services that improve healthcare service effectiveness.
- Also, being an AI-powered device, SleepWell AI+ could cause data breach problems that limits its effectiveness (Mehta, 2025).
- Therefore, although this device has strong potential, its effectiveness depends on secure data protection and affordability.

Addressing the Shortfalls

The developers must focus on improving data security to protect the confidential information of users, which will improve the trustworthiness of the device. In addition, regular updates will ensure high accuracy of the device.

Conclusion

SleepWell AI+ is highly focused on analysing accurate sleeping data, which is useful to provide better personalised suggestions to people. Also, developers must strengthen data security measures to protect confidential data of users.

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