# Insights from a Second User Meeting on NightWare for PTSD-Related Nightmares: NightWare Product Development and Recommendations for Improved Sleep

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## **Abstract:**

This white paper examines the innovative utilization of the NightWare digital therapeutic in managing Nightmare Disorder and Post-Traumatic Stress Disorder (PTSD), both of which significantly disrupt sleep quality and affect overall health and daily functioning. Based on insights gathered from a user meeting with clinicians who have incorporated NightWare into their practices, the paper discusses potential advancements, with the primary focus being on refining the therapy tracking mechanism, incorporating feedback from bed partners, and the proposed addition of a sleep coaching feature in the NightWare software. The collective perspectives highlighted in this paper underscore the significant potential of NightWare as a tailored therapeutic intervention, and its critical role in shaping future strategies for treating sleep disturbances associated with Nightmare Disorder and PTSD. This document serves as a comprehensive reference for clinicians and healthcare providers seeking to further understand and leverage the NightWare device in their clinical practice.

## Introduction:

Nightmare Disorder and Post-Traumatic Stress Disorder (PTSD) are profound conditions that manifest in disrupted sleep quality, leading to considerable impacts on overall health and daily functioning. Managing these sleep disorders has been a complex challenge in the medical community, requiring a continuous search for effective solutions. In this process, the NightWare medical device has emerged as an innovative tool. The technology at the heart of this device facilitates the analysis of biometric sleep data. With this analysis, the device is capable of detecting the occurrence of nightmares and intervening by generating gentle vibrations through a smartwatch. This white paper draws together the diverse insights, experiences, and potential future developments shared in a meeting by clinicians who have incorporated NightWare into their practices. The purpose of this document is to offer a comprehensive understanding of the insights gathered at a user meeting with these clinicians, with the hope of improving the management and treatment of sleep disturbances.

## **Participants:**

The meeting was moderated by COL (Ret.) Brian Robertson, MD, Chief Medical Officer of NightWare and attended by four clinicians supporting active duty military personnel representing psychology and sleep medicine. Clinicians preferred to not disclose their names.

## Methods:

The user meeting was attended by sleep medicine doctors, psychologists, and other healthcare providers who treat patients with nightmare disorder. The meeting was designed to gather feedback from prescribers about the use of NightWare in clinical practice, including advice for improved sleep for patients and future developments. The meeting was structured as a moderated discussion, and the insights gained were recorded and summarized.

## **Results:**

The user meeting generated several insights that have important implications for clinicians who treat patients with Nightmare Disorder. These insights are organized into the following categories: improving therapy tracking mechanism, incorporating feedback from bed partners, sleep coach in NightWare app.

# **Improving Therapy Tracking Mechanism:**

- Proposed enhanced sleep tracking of sleep and wake patterns, stages of sleep, and measures of restlessness
- Incorporate baseline sleep habits, trauma anniversaries, and bed partner status into NightWare platform

During the meeting, one of the significant subjects of discussion revolved around the enhancement of the therapy tracking mechanism. Currently, NightWare collects a myriad of biometric data to track patient sleep quality, disturbances, and their response to the device's interventions. Participants proposed to expand this mechanism by adding components like sleep and wake patterns, sleep stages, trauma anniversaries, and patient behaviors that hint at restlessness.

Additionally, participants discussed implementing a 'pre-therapy' survey to provide baseline data. This survey would seek to understand patients' pre-therapy sleep habits, crucial trauma anniversaries, and whether they have a consistent bed partner. Such data would provide a more granular understanding of patients' sleep habits and their progress with therapy.

## **Incorporating Feedback from Bed Partners:**

# Proposed incorporating bed partner feedback into NightWare platform

Clinicians pointed out the untapped potential of information from partners or caregivers of patients. Partners often witness the effects of Nightmare Disorder and PTSD and can provide valuable observations about the patient's sleep behaviors and therapy progress. They suggested including these data in the form of a survey for partners, further enriching the dataset for clinicians to analyze and understand the therapy's overall impact.

## Sleep Coach in NightWare App:

- Include tips on sleep hygiene, relaxation methods and tools, and other sleeping aids in NightWare platform
- Potentially make these assets personalized for user of NightWare device

Another exciting proposition raised during the meeting was the inclusion of sleep coaching aspects in the NightWare application. In this context, sleep coaching is understood as supportive educational content or reminders that can aid in managing sleep hygiene and fostering better sleep habits.

For instance, the app could potentially remind patients to maintain a consistent sleep schedule, avoid certain food or drinks before bed, or suggest relaxation exercises that might promote better sleep. These suggestions could be personalized based on the data collected from the patient surveys, creating a highly tailored sleep coaching experience for the individual user.

## **Conclusion:**

The insights generated from this user meeting reaffirms the significant potential of NightWare in managing and treating Nightmare Disorder and PTSD, underlining its role as an innovative tool in sleep medicine. Key insights emerged around refining the therapy tracking mechanism, integrating feedback from bed partners, and the potential development of a sleep coaching component within the NightWare app. These considerations will undoubtedly contribute to shaping future iterations of the NightWare device and its associated software, ultimately enhancing its effectiveness in addressing sleep disturbances in individuals dealing with Nightmare Disorder and PTSD. As NightWare continues to adapt and innovate in response to such invaluable clinical feedback, it progresses in optimizing patient outcomes by providing targeted, personalized treatment for sleep disturbances.

Meeting insights will be incorporated into the <u>NightWare Clinical Treatment Guidelines</u> which provides prescribing clinicians the best practices for maximizing outcomes through utilizing NightWare. If you would like to request access to this document you may email <u>nightwareprofessionaleducation@nightware.com</u> or visit the Prescriber Resources section at <u>www.nightware.com</u>.