Nurses' Experience Implementating Weighted Blankets in Inpatient Psychiatric Unit

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**Introduction of the Problem**

Patients are never truly one dimension and cannot be cared for in a one-dimensional manner. Patients often seek psychiatric care with concurrent sleep difficulties, further complicating their care. Dr. Khurshid (2018) explains, "The same pathophysiological mechanism that causes psychiatric disorders such as depression, anxiety, and psychosis can also cause insomnia or hypersomnia" (p. 28). Conversely, irregular sleep patterns such as insomnia or hypersomnia can induce cognitive impairments or mood disorders (Verkhratsky et al., 2020).

Providers are challenged to successfully treat patients with the least amount of medication possible to increase their long-term safety. In the past, providers would choose to treat the psychiatric condition, believing that it would regulate any sleep complaints the patients made. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), removed the distinction between primary and secondary insomnia to stress the importance of treating insomnia. By removing the primary or secondary distinction, providers are encouraged to see the importance of treating insomnia regardless of condition (Khurshid, 2021). Verkhratsky et al. (2020) explained that the mechanism between psychiatric conditions and sleep deprivation is poorly understood despite a strong association. An association that is strong enough to be a reliable element in diagnosing conditions like Major Depression Disorder, Schizophrenia, or Bipolar.

Managing sleep disturbances for patients with psychiatric disorders and maintaining the quality of their sleep improves the long-term outcomes for patients with substance abuse or psychiatric illness, considering dysregulated sleep can induce or coincide with a relapse in their mental health or substance use (Khurshid, 2021; Verkhratsky et al., 2020). Unfortunately, long-term use of hypnotics and over-the-counter medications to aid in sleep is contraindicated due to the questionable benefits and the associated risk of dependence, dementia, cancer, and other complications (Heid, 2018; Zee et al., 2023).
It is expected that psychiatric nurses would frequently discuss patients’ concerns about finding the correct medication to help them sleep or regulate their emotions. However, redirecting and guiding patients through coping skills can only help so much before they fail. These skills can be challenging for patients to utilize while learning them, especially in distress. This leaves nurses with few options for patients. Weighted blankets offer another tool to patients, especially those still learning new skills; since they are as simple as they sound, a patient merely needs to lie under them.

**Literature Review**

A literature review was conducted to establish safety and benefits for patients. Patients' use of weighted blankets and lap pads while admitted to a psychiatric facility has not been extensively studied. The current literature, while limited, supports the use of weighted modalities in various settings, including psychiatric ones. It indicates that weighted blankets are safe, aid in managing sleep disturbances, and improve patients' health and mood.

However, no proven mechanism exists for how weighted blankets improve patients' mood or sleep. Theories include triggering the Pacinian corpuscle activates the parasympathetic nervous system, overriding part of the sympathetic nervous system's signal, and inducing a state of calm and relaxation (Champagne et al., 2015; Chen et al., 2013; Ekholm et al., 2020; Mullens et al., 2008; Steingrimsson, 2022). An alternative theory is that regulating hormone levels, including oxytocin, serotonin, melatonin, and cortisol, could be another mechanism (Becklund et al., 2021; Ekholm et al., 2020; Odéus et al., 2022).

Novak et al. (2012) showed that patients in a 40-bed psychiatric unit preferred weighted blankets over other non-pharmacological interventions and reported improved moods with use. Dickson et al. (2021) showed that inpatient psychiatric patients self-rated an improvement in anxiety at both 15-minute and 30-minute intervals. Weighted blankets improve the patient's perceived mood and distress levels (Dickson, 2012; Ekholm et al., 2020).
Bolic Baric et al. (2021) reported that approximately 50% of weighted blanket users reported improved daytime routines. The use of weighted blankets improved patients' sleep experience and improved daytime symptoms of sleep deprivation (Ekholm et al., 2020; Hjort Telhede et al., 2020). In an epidemiological study, Steingrimsson et al. (2021) showed that weighted blankets were associated with reduced sleep medicine prescribed. The use of weighted blankets does not significantly alter patients' health status, with no significant change in blood pressure or blood serum levels of oxygen or carbon dioxide (Bolic Baric et al., 2021; Ekholm et al., 2020; Hjort Telhede et al., 2021).

**Project Methods**

The primary objective of this DNP Project was to understand the behavioral staff’s perception of patients using weighted blankets and the impact on safety, milieu, and workloads. Before the study began SIUE’s IRB issued an exemption, and the facility approved the study. Anonymous surveys were provided to the psychiatric nurses to see how their opinions of the weighted blankets evolved during the initial implementation phase. The surveys comprised 11 statements, and staff rated their agreement using a 5-point Likert Scale. Staff were also given a free text response to report any issues, concerns, or safety events. No patient data was collected as part of the study.

Before implementation, staff were emailed a PowerPoint detailing benefits, risks, project outline, and unit policy. Staff members reviewed the PowerPoint individually and escalated questions and concerns. Clarification was provided via one-on-one discussion. Each staff member was required to acknowledge in writing that they understood the material and policy. A pre-implementation survey was conducted to be completed after nurses reviewed the material. Two weeks after implementation, another survey was conducted. A final post-implementation survey was conducted at conclusion of the study. Twenty-six nurses (n=26) were included as part of this process.

**Evaluation**
Surveys showed that weighted modalities positively impacted the milieu, were considered safe, and did not burden the nurses. Twenty-six nurses were anonymously surveyed three times. Nine surveys were missing across the three survey groups. The totals included Pre-Implementation (n=24), Mid-Point (n=22), and Final (n=23), with all questions answered.

The number of nurses who “agreed” or “strongly agreed” to the statement that “patients will use, are utilizing, or are interested in using weighted modalities” increased by approximately half from the pre-implementation survey to the final survey, with a final count of nineteen nurses agreeing or strongly agreeing.

The final survey showed that 65% of nurses agreed or strongly agreed that weighted blankets and lap pads positively impact the unit, an improvement from approximately 40% in the pre-implementation survey. Additionally, 75% of nurses agreed or strongly agreed that weighted modalities were safe for patients, with less than 10% disagreeing or strongly disagreeing. Approximately the same responses were recorded for nurses agreeing or strongly agreeing that weighted modalities were safe for staff.

An improvement was noted in the statement, “Using weighted modalities is a manageable addition to the staff’s responsibility.” At the pre-implementation, 40% of participants disagreed or strongly disagreed; at the final survey, approximately 25% disagreed or strongly disagreed.

Only ten responses were submitted when asked to list any concerns, safety events, or issues. Safety issues noted were patients needing a reminder not to place over their faces when sleeping and sharing weighted lap pads without staff monitoring. There were also cases where patients left blankets unattended in common areas. Concern about the weight of the blankets for staff members was noted when cleaning blankets. A weighted blanket was included with general laundry and off the unit, which was inconsistent with the established procedure.
Limitations

This project accomplished the goal of better understanding the implementation of weighted modalities and their effect on nurses. Due to the study's relatively short duration and the small sample size, unique phenomena likely failed to occur. While a diverse patient population is present, many psychiatric and medical diagnoses are limited in the study. With more time, a subset of patients can have an issue with a weighted blanket. In addition to the influence of patients when using weighted modalities, a limited number of nurses are participating in this study. Across other units and facilities, experiences may vary. Study participants have a low patient-to-nurse ratio of 5 to 1, and the study was conducted in a recently renovated ligature-resistant unit with cameras in all patient rooms and common areas. Many psychiatric units are missing one or more of the elements.

Impact on Practice

This study will continue to impact patient care. The facility will continue to offer weighted blankets and lap pads for patient use. There is potential for the facility to expand the use of weighted blankets and lap pads to other units. The blankets and lap pads demonstrate the use of a hospital-grade product for the other units' evaluation. An indirect benefit of offering weighted blankets is that the nurses can reinforce holistic coping skills and strategies. The goal is to equip patients better to manage their mood and their sleep and offer an alternative to medication.

The long-term impact of continuing to use weighted blankets in this setting is that patients are given another tool to manage their anxiety and sleep difficulties. A select group of patients will be able to reduce their dependence on medicine. Others learn that there are valuable non-pharmacologic interventions that can aid emotional regulation. Suggestions for ongoing practice include adding patient education about weighted blankets into the electronic medical record. Another potential improvement is to report who has been issued a weighted blanket at the staff safety meeting. This would increase awareness of who has a blanket.
Conclusion

The study's results showed promise in using weighted blankets and lap pads but indicated that more research is needed to parse out the actual patient benefits. Participants believed it was safe for patients and staff alike. Offering weighted modalities benefits both patients and the milieu. There are many aspects to be investigated. Research would be well suited to see if offering a weighted blanket decreases the use of medications related to sleep or anxiety in a psychiatric unit. Future research would also be well served to investigate whether using a weighted blanket in a psychiatric unit increases sleep hours and reduces daytime insomnia symptoms.