



ORIGINAL ARTICLE

Weighted Blankets as a Non-Pharmacological Intervention for Sleep, Mental and Neurodevelopmental Disorders: A Narrative Review

Adrianna Jaślikowska¹, Natalia Niderla², Jakub Rzesutek³, Natalia Rachwał⁴, Weronika Grzyb⁵, Michał Kurnik⁵, Dominika Grzybowska³, Kamil Idzik⁶, Adrian Kubicki²

¹ 1 Wojskowy Szpital Kliniczny z Polikliniką SPZOZ w Lublinie, Lublin, Poland

² Czerniakowski Hospital, Warsaw, Poland

³ St. Luke's Provincial Hospital, Tarnów, Poland

⁴ Cardinal Stefan Wyszyński Provincial Specialist Hospital, Lublin, Poland

⁵ Megrez Provincial Multispecialty Hospital, Tychy, Poland

Corresponding author: Adrianna Jaślikowska

e-mail: adriannajaslikowska@gmail.com

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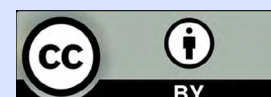
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blankets as a standalone therapeutic intervention. Nevertheless, they may represent a safe and accessible adjunctive strategy for selected patients, particularly those experiencing insomnia and anxiety. Further high-quality studies employing objective outcome measures are needed to clarify their clinical effectiveness and mechanisms of action.

KEYWORDS

weighted blankets, deep pressure stimulation, insomnia, sleep disorders, anxiety, autism spectrum disorder, attention-deficit/hyperactivity disorder, sensory processing, non-pharmacological

ABSTRAKT

Background: Weighted blankets are a non-pharmacological intervention based on deep pressure stimulation (DPS) that has gained increasing popularity as a supportive method for improving sleep, reducing anxiety, and enhancing daily functioning in individuals with mental and neurodevelopmental disorders. Despite their widespread use in both clinical and home settings, the evidence regarding their effectiveness remains inconsistent.

Aim: The aim of this narrative review was to summarize current evidence regarding the proposed mechanisms of action, safety, and clinical effectiveness of weighted blankets in sleep disorders, mental disorders, and neurodevelopmental conditions, particularly autism spectrum disorder (ASD) and attention-deficit/hyperactivity disorder (ADHD).

Material and methods: We conducted a targeted literature review using the keywords: weighted blankets, deep pressure stimulation, insomnia, autism spectrum disorder, ADHD, anxiety, sleep disorders, and mental disorders. The primary data sources were PubMed, selected for its broad and comprehensive range of publications in the fields of biomedical and psychological research, and Google Scholar. We included systematic reviews, narrative reviews, clinical studies, practice guidelines, and case reports published between 2004 and 2026.

Results: Available evidence suggests that weighted blankets are generally safe and well tolerated. Some studies indicate improvements in subjective sleep quality, insomnia severity, anxiety symptoms, and daytime functioning, particularly among individuals with insomnia co-occurring with anxiety or psychiatric disorders. However, findings regarding objective sleep parameters remain inconsistent. Evidence supporting the use of weighted blankets in ASD is limited, whereas preliminary findings in ADHD suggest potential benefits for sleep outcomes. Proposed mechanisms include modulation of autonomic nervous system activity, increased melatonin secretion, and effects on sensory processing, although these hypotheses require further confirmation.

Conclusions: Current evidence does not support the routine use of weighted

1. Introduction

A weighted blanket (WB) is a non-pharmacological, non-invasive method used to support sleep initiation and reduce tension and anxiety. Weighted blankets are utilized by occupational therapists as an adjunctive intervention in the treatment of sleep disorders. Another common application is supporting daily functioning in children and adults with neurodevelopmental disorders, particularly autism spectrum disorder (ASD) and attention-deficit/hyperactivity disorder (ADHD). Due to the growing popularity of weighted blankets, their use has expanded to support broadly defined mental health. Weighted blankets are used both in healthcare settings and at home. Despite their increasing popularity, specific guidelines for the use of weighted blankets have not yet been established.

Research findings regarding the effectiveness of weighted blankets remain inconclusive. Some studies indicate that weighted blankets may reduce anxiety and improve sleep quality. Others, particularly those employing objective physiological measures, have not consistently confirmed these effects. However, there is general agreement that weighted blankets are well tolerated, safe, and not associated with a significant risk of serious adverse events. According to the 2022 World Mental Health Report published by the World Health Organization (WHO)^[1], approximately one in eight people worldwide lives with a mental disorder. Insomnia is a major public health concern affecting a substantial proportion of the population at some point in life. Approximately 10% of adults suffer from chronic sleep disorders, while an additional 20% experience occasional insomnia symptoms. The consequences of insomnia are significant both for individuals, due to reduced quality of life, and for society, through work absenteeism, disability, and increased healthcare costs^[2].

Hypnotic medications carry a risk of adverse effects and dependence and are therefore recommended only for short-term use. Cognitive behavioral therapy and accompanying psychoeducation, although effective, require time and sustained engagement^[3]. Consequently, weighted blankets may represent a potential adjunct to existing therapeutic approaches for sleep disorders, as they are non-invasive and easy to implement both in healthcare facilities and in home settings.

The aim of this narrative review is to: (1) describe what weighted blankets are and how they are used, (2) present hypotheses regarding their physiological mechanisms of action, (3) evaluate their safety profile, and (4) analyze evidence regarding the effectiveness of weighted blankets in the treatment of insomnia and in alleviating symptoms associated with mental disorders

and neurodevelopmental conditions such as ASD and ADHD.

2. Proposed Physiological Mechanisms of Deep Pressure Stimulation

Studies investigating the use of weighted blankets have reported subjective reductions in tension, stress, and anxiety, as well as improvements in perceived comfort and feelings of safety. However, findings regarding their effectiveness remain inconclusive, and research protocols are highly heterogeneous^[1]. It has been suggested that weighted blankets exert their effects through deep pressure stimulation (DPS). DPS is a sensory modulation technique involving tactile input that provides a sensation of deep pressure, similar to that experienced during hugging, holding, swaddling, or massage. DPS may be induced not only through human contact but also through therapeutic devices such as weighted blankets and weighted vests^[5].

Researchers have cautiously described the effects of DPS. User reports indicate that DPS has a calming effect and increases feelings of security and comfort^[5,6]. Several authors have proposed that deep pressure may increase oxytocin levels, a hormone that plays an important role in relaxation and sleep^[3,7]. Oxytocin also exhibits anxiolytic properties and may increase pain^[7]. Meth et al. (2023) measured salivary oxytocin concentrations during weighted blanket use before sleep. They observed a transient increase in oxytocin levels during the early phase of measurement; however, the effect did not reach statistical significance. Due to technical limitations affecting interpretation of the findings, this issue may require further investigation^[7]. Taylor et al. (2017) further proposed that the calming effects of DPS may be related to modulation of serotonergic and dopaminergic neurotransmission^[9].

2.1. Melatonin

Some studies suggest that the use of weighted blankets before bedtime may be associated with increased melatonin secretion. Melatonin plays a crucial role in regulating the sleep-wake cycle, and some evidence also suggests anxiolytic effects. Meth et al. (2022) demonstrated that WB use before sleep was associated with a greater increase in salivary melatonin concentration one hour before bedtime compared with the use of a conventional lightweight duvet. Although this result was statistically significant, it remains unclear whether the observed increase has therapeutic relevance in the treatment of insomnia.

The authors did not identify the mechanism underlying these observations. One proposed explanation involves activation of cutaneous sensory fibers by pressure exerted by the weighted blanket. These sensory signals may then be transmitted via the spinal cord to the nucleus tractus solitarius, which projects to the paraventricular nucleus of the hypothalamus containing oxytocinergic neurons. These neurons may participate in regulating pineal gland activity and melatonin secretion. This mechanism could potentially explain the greater increase in melatonin concentration observed among weighted blanket users^[7].

It is noteworthy that spinal cord injuries resulting in complete loss of afferent sensory signaling are associated with a complete absence of the normal evening rise in melatonin concentration (Verheggen et al., 2012), supporting the hypothesis that the peripheral sensory nervous system contributes to melatonin secretion^[10].

2.2. Influence on the Autonomic Nervous System

The activity of the autonomic nervous system (ANS), comprising the sympathetic nervous system (SNS) and parasympathetic nervous system (PNS), can be indirectly assessed through heart rate variability (HRV) analysis. Heart rate is influenced by both sympathetic and parasympathetic activity. Parasympathetic influences are present across the entire HRV frequency spectrum, whereas sympathetic influences diminish at frequencies above approximately 0.15 Hz. Consequently, the high-frequency component of HRV (HF-HRV; 0.15-0.4 Hz) is considered primarily a marker of parasympathetic activity. The low-frequency component (LF-HRV; 0.04-0.15 Hz) reflects both sympathetic and parasympathetic influences. The LF/HF ratio is sometimes interpreted as an indirect marker of sympathovagal balance, although its interpretation remains debated.

HF-HRV is considered an important marker of behavioral regulation and emotional adaptation. Higher HF-HRV values are associated with better emotional regulation, greater psychological flexibility, and more effective adaptation to stress, whereas reduced HF-HRV has been observed in anxiety disorders and chronic stress.

Chen et al. (2019) demonstrated that third molar extraction induced significant changes in autonomic parameters in both the control and WB groups. However, different response patterns were observed. Specifically, participants receiving DPS exhibited higher HF-HRV values and lower LF/HF-HRV ratios during tooth extraction compared with controls. Overall, the

findings suggest that WB use may influence autonomic responses during third molar extraction by promoting parasympathetic activation and a more balanced autonomic modulation^[4].

Similar findings were reported in another wisdom tooth extraction study, although a reduction in LF-HRV was not confirmed, indicating the need for further investigation of the effects of DPS on LF-HRV parameters^[5]. A separate study assessing stress responses during dental treatment also demonstrated differing ANS activity patterns between control participants and those using weighted blankets. The control group showed increased parasympathetic activity interpreted as a compensatory self-regulatory response to stress, whereas the WB group exhibited a more balanced autonomic modulation. These findings suggest that weighted blankets may facilitate adaptation to stressful situations through stabilization of autonomic responses^[3].

2.3. Influence of DPS on Brain Bioelectrical Activity

An increasing number of studies suggest that DPS may influence not only subjective perceptions of stress and anxiety but also brain bioelectrical activity measured using electroencephalography (EEG). Maula et al. (2024) evaluated the effects of an inflatable DPS vest on relaxation responses. Both subjective calming effects, measured using a Visual Analogue Scale (VAS), and objective EEG parameters were assessed.

Participants rated the device highly, reporting a mean calming effect score of 81 points on the VAS. The most frequently observed EEG change was increased theta wave activity (4-8 Hz), observed in 64% of participants. Theta waves are associated with limbic and hippocampal activity and are often linked to relaxation, meditation, and anxiety reduction. The authors suggested that increased theta activity may indirectly reflect enhanced neuronal inhibition associated with GABAergic activity, which plays an important role in emotional regulation and relaxation responses.

Increased delta-wave activity was observed in 60% of participants and was interpreted as a potential indicator of improved sleep quality and a more restful state. Increased alpha-wave activity was associated with relaxation and meditation-like states. The authors also highlighted the potential relevance of DPS in neurodevelopmental disorders. ASD has been linked to dysregulation of the balance between glutamatergic excitation and GABAergic inhibition. Because theta activity is associated with neuronal inhibition and GABAergic functioning, DPS could hypothetically support senso-

ry integration and emotional regulation in individuals with ASD.

However, despite these observed trends, statistical analyses did not reveal significant changes in individual EEG frequency bands. This limits the ability to draw definitive conclusions regarding the effects of DPS on brain bioelectrical activity. These findings should therefore be interpreted cautiously as preliminary evidence requiring further investigation^[6].

3. Safety and Practical Considerations

A weighted blanket is typically constructed from fabric divided into compartments filled with weighting material, most commonly glass or plastic microbeads that allow even distribution of weight across the body surface^[1]. Other blankets use chains or fibers fixed within the insert^[3,15]. Weighted blankets are available in a range of weights, typically from 3 to 14 kilograms^[3]. Appropriate blanket weight is important to ensure both safety and effectiveness.

Initially, an upper limit of 10% of body weight was commonly recommended^[4]. However, Mullen et al. (2008) suggested that using a blanket exceeding 10% of body weight may still be safe and well tolerated. In their study, weighted blankets weighing up to 14 kg were used. Safety was evaluated through measurements of vital signs in healthy adult participants. Blood pressure, pulse, and oxygen saturation remained within physiological ranges, and 63% of participants reported a subjective reduction in anxiety after blanket use^[5]. Similar findings were reported in a study involving psychiatric inpatients^[5].

Current evidence suggests that weighted blankets are generally well tolerated and are not associated with serious adverse events in adults^[16,17]. Adverse events reported in pediatric studies have been uncommon. Gringras et al. described a single case of transient

dies involving individuals with mental and neurodevelopmental disorders are discussed in later sections of this review.

Among individuals with sensory hypersensitivity and insomnia, weighted blanket use was associated with improved Insomnia Severity Index (ISI) scores, corresponding to a reduction of insomnia severity by one clinical category. All participants reported subjective improvements in sleep quality, and 3 of 5 participants showed increased total sleep time. Objective sleep measures also improved in some studies. Polysomnography (PSG) and actigraphy demonstrated calmer sleep and fewer movements during sleep. Improvements were observed in total sleep time (TST), reduced sleep onset latency (SOL), and reduced wake after sleep onset (WASO), indicating less fragmented sleep.

Several studies also reported increased slow-wave sleep (SWS), the sleep stage primarily responsible for physical restoration. This finding may partly explain the high levels of subjective satisfaction and perceived sleep improvement. A decrease in spindle index on PSG recordings was also observed. The authors suggested that this change may reflect reduced brain reactivity to external stimuli during sleep, potentially promoting sleep continuity, although the interpretation of this parameter remains uncertain and requires further investigation^[22,21,22].

Weighted blankets and deep pressure stimulation (DPS) may support sleep through both psychological and physiological mechanisms. The calming effect of DPS may arise from subjective feelings of safety and being „held” as well as from modulation of autonomic nervous system activity. It has been hypothesized that reduced sympathetic activity and increased parasympathetic activity could help counteract the hyperarousal commonly observed in insomnia. Studies analyzing HRV during sleep have shown a trend toward reduced sympathetic activation during WB use, although these differences generally did not reach statistical significance. Consequently, further research is needed to clarify the effects of DPS on autonomic regulation during sleep^[21,22].

Another hypothesis proposes that deep pressure stimulation may reduce electrodermal activity and physiological stress responses while increasing melatonin secretion before sleep. Although greater increases in melatonin were observed during WB use, it remains unclear whether these changes are clinically meaningful for the treatment of insomnia. No significant effects were found for salivary cortisol or alpha-amylase, markers associated with stress and sympathetic activation. Cortisol levels declined before sleep regardless of whether a weighted blanket or a standard lightweight

4. Evidence for Sleep Disorders

Evidence regarding the effects of weighted blankets on sleep quality and sleep duration remains inconclusive. Results vary across populations, including healthy volunteers, individuals with insomnia, patients with anxiety disorders, and children and adults with neurodevelopmental conditions such as ASD and ADHD. Some studies report improvements in subjective sleep quality, shorter sleep-onset latency, and fewer nocturnal awakenings, whereas others do not demonstrate significant changes in objective sleep measures. Stu-

blanket was used. In Meth et al. (2022), which included healthy young adults, WB use did not significantly affect subjective sleepiness or total sleep time. Nevertheless, it cannot be excluded that weighted blankets may be more beneficial in individuals with sleep disorders or elevated emotional arousal, which warrants further investigation^[7,22].

Senel et al. (2024) reported that weighted blanket use may be associated with a higher frequency of obstructive respiratory events during sleep, including hypopneas and apneas. Therefore, when weighted blankets are considered as an adjunctive intervention for insomnia, screening for obstructive sleep apnea (OSA) should be considered. Potential candidates may be assessed using validated screening questionnaires or polysomnography to exclude clinically significant OSA before initiating therapy^[22].

5. Evidence for Mental Disorders

Sleep disturbances are common comorbid symptoms in mental disorders. Insomnia is estimated to affect up to 70% of patients with bipolar disorder and approximately 60% of adults with depression and anxiety disorders. Persistent sleep disturbances despite successful treatment of affective episodes are considered a risk factor for relapse in both major depressive disorder and bipolar disorder^[8]. Improvements in sleep may also alleviate fatigue, depressed mood, and anxiety. Consequently, sleep-focused interventions, including weighted blankets, have attracted increasing interest as potential adjunctive treatments for mental disorders^[2].

Ekholm et al. (2020) evaluated weighted blankets in patients with severe depression, bipolar disorder, and generalized anxiety disorder. After four weeks of WB use, participants demonstrated significant improvement in ISI scores, with a large effect size according to Cohen's *d*. Available data further suggest that individuals with insomnia accompanied by elevated anxiety may derive greater benefit from weighted blankets than those with insomnia alone^[8,20,22].

Treatment of insomnia commonly includes hypnotic medications, cognitive-behavioral therapy, and sleep hygiene education. Although hypnotic medications are often perceived as a rapid solution for sleep initiation problems, their dependence potential limits recommendations to short-term use, and these recommendations are frequently not followed in practice. In this context, weighted blankets may represent a useful adjunctive intervention for patients with substance use disorders. Steingrimsson et al. (2021) investigated

whether introducing weighted blankets could reduce the use of benzodiazepine receptor agonists (BZRAs) and antihistamines. The study found a modest reduction in hypnotic use, with the exception of melatonin. Reductions were more commonly observed in patients with unipolar depression, anxiety disorders, and PTSD, whereas patients with bipolar disorder, psychotic disorders, or personality disorders were more likely to continue hypnotic use unchanged. Younger age was the strongest predictor of reduced hypnotic use. These findings suggest that weighted blankets may support insomnia management in chronic psychiatric conditions and, in some younger patients, may even partially substitute for pharmacological treatment^[24].

Several studies also reported effects beyond sleep itself. Users described greater daytime activity and reduced fatigue, anxiety, and low mood. Patients used weighted blankets not only at night but also during the day to reduce stress, tension, anxiety, and rumination. Subjectively, many participants reported improved well-being and daily functioning^[8,24].

Because weighted blankets are non-invasive and easy to use, researchers have also explored their use in medical settings. A pilot study involving emergency department patients evaluated for psychiatric conditions did not demonstrate significant reductions in anxiety or anger. However, the study was limited by a small sample size and division into multiple subgroups, reducing statistical power. Despite the absence of significant quantitative findings, some participants reported that the blanket helped them calm down and reduced feelings of anxiety. Although current evidence does not support routine use of weighted blankets in emergency departments, they may be considered as an easy-to-implement, non-invasive adjunct for emotional regulation^[25].

In contrast, a study conducted in locked psychiatric units—including addiction treatment, intensive psychiatric care with involuntary admissions, and geriatric psychiatry—found significant reductions in anxiety among patients using weighted blankets. Anxiety was assessed with the short form of the Spielberger State-Trait Anxiety Inventory (STAI: Y-6), and reductions were accompanied by decreases in heart rate. The anxiolytic effect appeared independent of blanket weight^[27].

6. Evidence for ASD and ADHD

Sleep and rest disturbances in children with autism spectrum disorder and sensory hyperreactivity are challenging clinical problems. Current evidence does not support the routine use of weighted blankets for

treating sleep disorders in children with ASD. Nevertheless, many parents choose to use them because they are readily available and generally perceived as safe.

In studies by Gringras et al. (2014) and Buckley et al. (2020), weighted blanket use in children with ASD did not produce significant differences in sleep outcomes, either in objective actigraphy measures or in parent-reported sleep diaries. No improvements were observed in total sleep time, sleep onset latency, or the frequency of nocturnal awakenings. TST measured by actigraphy did not differ between weighted blankets and standard lightweight blankets. Similarly, no improvements were found in sleep onset latency (SOL), sleep efficiency (SE), wake after sleep onset (WASO), or the number of nighttime awakenings. Despite the lack of clear evidence for efficacy, the authors suggested that weighted blankets may still represent a safe, non-pharmacological intervention that can be considered on an individual basis. Most children with ASD reported positive experiences with blanket use, and parents frequently perceived their children as calmer while using the blanket^[18].

Different findings were reported by Gee et al. (2016) and Bolic et al. (2023). In these studies, children with ASD using weighted blankets showed positive trends toward longer total sleep time and slightly shorter time to fall asleep. However, improvements were based solely on caregiver observations, without objective sleep measurements. Although better sleep could theoretically improve daily functioning and school performance, fewer than 20% of caregivers reported noticeable improvements in daily activities or school functioning. Caregivers also did not report clear improvements in children's mood upon waking. These findings may indicate that a possible increase in sleep duration does not necessarily translate into improved sleep quality or daytime functioning^[15].

Adequate sleep quality and duration are associated with better concentration, fewer school difficulties, and reduced symptoms of inattention and hyperactivity in children with ADHD. Compared with the general population, children with ADHD more frequently exhibit prolonged sleep latency, and a substantial proportion take more than 30 minutes to fall asleep^[2]. Although non-pharmacological interventions are recommended as first-line treatment for sleep problems in ADHD, pharmacological approaches remain more commonly used^[3]. One possible explanation is the limited number of non-pharmacological interventions supported by strong evidence-based medicine.

Hvolby et al. (2011) reported that weighted blankets were associated with significant improvements in actigraphy-derived sleep measures, including total sleep

time (TST), sleep efficiency (SE), wake after sleep onset (WASO), and sleep-onset latency (SOL). A small reduction in ADHD symptom severity was also observed, estimated at approximately 10% according to teachers and 6% according to parents^[14]. Lonn et al. (2023) reported similar findings, except that SOL did not improve significantly in their study. A major strength of this work was the use of objective sleep measurements. However, a key limitation was the difficulty of maintaining full blinding, as participants and caregivers could easily distinguish the heavier intervention blanket from the lighter control blanket. This may increase the risk of expectancy effects and influence subjective assessments of treatment efficacy^[19].

7. Discussion

This narrative review suggests that weighted blankets are a safe and generally well-tolerated form of deep pressure stimulation (DPS) that may support the management of selected sleep disorders, mental disorders, and some difficulties experienced by individuals with neurodevelopmental conditions. At the same time, the available scientific evidence remains inconsistent, and the effectiveness of this intervention likely depends on the characteristics of the population studied, the outcomes assessed, and the methodology employed.

The most promising findings appear to involve individuals with insomnia co-occurring with mental disorders, particularly anxiety and affective disorders. In these populations, improvements have been reported in both subjective sleep quality and selected actigraphy- or polysomnography-derived parameters. Reported benefits include reduced insomnia severity, shorter sleep latency, longer total sleep time, and reduced sleep fragmentation. In contrast, effects were generally weaker or absent in studies involving healthy volunteers. This pattern may suggest that the potential benefits of weighted blankets become more apparent in states of increased psychophysiological arousal, such as insomnia, anxiety, or chronic stress.

An important observation is that subjective outcomes are often more favorable than objective sleep measures. Participants frequently report better sleep quality, reduced emotional tension, and increased feelings of safety and comfort even when actigraphy or polysomnography fails to demonstrate significant changes. This discrepancy should not necessarily be interpreted solely as a placebo effect. In the treatment of insomnia and mental disorders, subjective improvement in sleep quality and well-being is itself a clinically meaningful

outcome that may translate into better daily functioning.

The mechanisms underlying the potential therapeutic effects of weighted blankets remain uncertain. The most commonly proposed explanation is that DPS influences autonomic regulation by reducing sympathetic activity and relatively increasing parasympathetic activity. Some HRV studies support this possibility, but findings are not fully consistent. Similarly, evidence regarding oxytocin and melatonin secretion is mixed. Although trends toward increased concentrations have been observed during WB use, the clinical significance of these hormonal changes has not been established. At present, these mechanisms should therefore be regarded as hypotheses requiring further verification.

Particularly noteworthy are findings related to mental disorders. Reported benefits extend beyond sleep itself and include reductions in anxiety, improved mood, decreased fatigue, and increased daytime activity. Some patients use weighted blankets not only at night but also as a self-regulation strategy during periods of stress, tension, or rumination. This suggests that the potential applications of DPS may extend beyond sleep treatment and include broader support for emotional regulation.

Evidence for ASD is less convincing. The best-designed studies using objective sleep measures did not demonstrate significant improvements in sleep parameters. Nevertheless, children and caregivers often reported greater comfort and calmer behavior when using weighted blankets. This may indicate that the primary benefit in ASD relates to subjective sensory comfort rather than direct improvements in sleep architecture. Evidence in ADHD appears somewhat more encouraging, although the number of available studies remains limited.

Interpretation of the literature is complicated by substantial methodological limitations. Most studies involve small samples, heterogeneous protocols, and difficulties with blinding. This issue is particularly relevant for weighted blanket research because participants can usually determine whether they are using the active intervention or a control condition. Differences in blanket weight, duration of use, participant age, and outcome measures further limit direct comparisons across studies and prevent firm clinical recommendations.

Safety data are generally reassuring. Weighted blankets appear to be well tolerated in both children and adults, and serious adverse events are rare. However, isolated reports suggesting a possible increase in obstructive respiratory events during sleep indicate that caution may be warranted in individuals with suscep-

ted obstructive sleep apnea. Further research is needed to clarify this issue and its implications for patient selection.

Future studies should focus on multicenter randomized controlled trials using standardized protocols. Important priorities include determining the optimal blanket weight and duration of use, identifying patient groups most likely to benefit, and clarifying the neurophysiological mechanisms underlying DPS. Additional research is also needed to evaluate the significance of observed hormonal and autonomic changes.

Overall, the current body of evidence suggests that weighted blankets may represent a safe and potentially useful adjunctive intervention for insomnia and selected symptoms associated with mental and neurodevelopmental disorders. However, the strength of the evidence remains moderate, and effectiveness has not been consistently demonstrated across all populations studied. Weighted blankets should therefore currently be viewed as a complement to, rather than a replacement for, established therapeutic approaches.

8. Conclusions

Weighted blankets represent a safe and well-tolerated form of deep pressure stimulation (DPS) that may support the management of sleep disorders, selected mental disorders, and some difficulties experienced by individuals with ASD and ADHD. Available evidence suggests that the greatest benefits may occur in individuals with insomnia accompanied by anxiety or other mental disorders, where improvements in sleep quality, insomnia severity, and anxiety symptoms have been observed.

At the same time, study findings remain inconsistent, particularly regarding objective sleep measures and the effectiveness of weighted blankets in children with ASD. Although proposed mechanisms include modulation of autonomic nervous system activity, effects on melatonin secretion, and changes in brain bioelectrical activity, current evidence does not allow definitive confirmation of these hypotheses.

The current state of knowledge does not support the routine use of weighted blankets as a stand-alone therapeutic intervention. However, they may represent a valuable adjunctive strategy due to their non-invasive nature, ease of use, and favorable safety profile. Further studies involving larger samples and objective outcome measures are needed to clarify their clinical effectiveness and mechanisms of action.

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Author's Contribution:**Conceptualization:** AJ, JR, DG**Formal analysis:** DG, KI, AK**Investigation:** AJ, JR**Writing – original draft preparation:** AJ, JR, KI, AK, NN**Writing – review and editing:** NR, WG, MK**Supervision:** NR, WG, DG

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