

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

# Weighted Blankets for Self-Regulation in Pediatrics: Clinical Effectiveness and Guidelines

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## Research Questions

1. What is the evidence regarding clinical effectiveness of weighted blankets for pediatric patients for self-regulation?
2. What are the evidence-based guidelines regarding the use of weighted blankets in pediatric patients for self-regulation?

## Key Findings

One systematic review and one randomized controlled trial were identified regarding weighted blankets for self-regulation in pediatric patients. No relevant evidence based-guidelines were identified.

## Methods

A limited literature search was conducted on key resources including Medline and PsycInfo via OVID, the Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2014 and March 12, 2019. Internet links were provided, where available.

## Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

**Table 1: Selection Criteria**

<b>Population</b>	Pediatric patients (up to 18 years of age ) in any setting
<b>Intervention</b>	Weighted blankets
<b>Comparator</b>	Q1: Physical restraints; medication; current standard of care; alternative therapies (e.g., sensory rooms, therapeutic listening, vestibular interventions, sensory integration, cognitive behavioural therapy, etc.) Q2: No comparator
<b>Outcomes</b>	Q1: Clinical effectiveness (e.g., calming, decreased agitation, decreased aggression, decrease in self-injuries, improved quality of life, change in cognition, participation in school/work, ability to perform activities of daily living, changes in medication use, etc.); safety (e.g., side effects, adverse effects, contraindications, skin integrity, skin ulcers, heart rate, blood pressure changes, etc.)

	Q2: Guidelines on appropriate indication and appropriate use.
<b>Study Designs</b>	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines

## Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

One systematic review, and one randomized controlled trial were identified regarding weighted blankets for self-regulation in pediatric patients. No relevant health technology assessments, meta-analyses or evidence-based guidelines were identified.

Additional references of potential interest are provided in the appendix.

## Overall Summary of Findings

One systematic review<sup>1</sup> and one randomized controlled trial (RCT)<sup>2</sup> were identified regarding weighted blankets for self-regulation in pediatric patients. The authors of the systematic review aimed to evaluate the safety and effectiveness of various intervention for sensory challenges in children with autism spectrum disorder (ASD).<sup>1</sup> The RCTs (number unspecified) identified by the authors reported results that interventions with sensory-related components, such as weighted blankets, showed significant differences in ASD symptoms and sensory challenges.<sup>1</sup> The authors of the RCT aimed to assess the effectiveness of weighted blankets in treating severe sleep problems in children with ASD.<sup>2</sup> They found that the weighted blankets did not significantly improve sleeping patterns (e.g., sleeping faster, longer periods of sleep, or waking less often) between children with ASD who did and did not use weighted blankets.<sup>2</sup> However, the authors mentioned that the weighted blanket was favored by children and parents.<sup>2</sup>

## References Summarized

### Health Technology Assessments

No literature identified.

### Systematic Reviews and Meta-analyses

1. Vanderbilt Evidence-based Practice Center, Weitlauf AS, Sathe NA, McPheeters ML, Warren Z. Interventions targeting sensory challenges in children with autism spectrum disorder—an update [internet]. (*Comparative effectiveness review no. 186*). Rockville (MD): Agency for Healthcare Research and Quality; 2017: <https://effectivehealthcare.ahrq.gov/topics/asd-interventions/research-2017>. Accessed 2019 Mar 19.

## Randomized Controlled Trials

2. Gringras P, Green D, Wright B, et al. Weighted blankets and sleep in autistic children-- a randomized controlled trial. *Pediatrics*. 2014;134(2):298-306.  
[PubMed: PM25022743](#)

## Non-Randomized Studies

No literature identified.

## Guidelines and Recommendations

No literature identified.

## Appendix — Further Information

### Previous CADTH Reports

3. Weighted blankets for adults with mental illness: clinical effectiveness, cost-effectiveness, guidelines. (*CADTH Rapid response report: summary of abstracts*). Ottawa (ON): CADTH; 2019: <https://www.cadth.ca/weighted-blankets-adults-mental-illness-clinical-effectiveness-cost-effectiveness-guidelines>. Accessed 2019 Mar 19.
4. Weighted blankets for dementia care in long-term care: clinical effectiveness, cost-effectiveness, and guidelines. (*CADTH Rapid response report: summary of abstracts*). Ottawa (ON): CADTH; 2019: <https://www.cadth.ca/weighted-blankets-dementia-care-long-term-care-clinical-effectiveness-cost-effectiveness-and>. Accessed 2019 Mar 19.
5. Weighted modalities for adults with mental illness: clinical effectiveness. (*CADTH Rapid response report: reference list*). Ottawa (ON): CADTH; 2019: <https://www.cadth.ca/weighted-modalities-adults-mental-illness-clinical-effectiveness>. Accessed 2019 Mar 19.

### Non-randomized Studies

#### *Population Unspecified*

6. Elkhholm B, Adler M. Weighted blankets for insomnia in affective disorder and ADHD – a clinical follow up study. *PsyArXiv*. 2018. <https://doi.org/10.31234/osf.io/wjsr2>.

#### *Adult Population*

7. Champagne T, Mullen B, Dickson D, Krishnamurty S. Evaluating the safety and effectiveness of the weighted blanket with adults during an inpatient mental health hospitalization. *Occupational Therapy in Mental Health*. 2015;31(3). <https://www.tandfonline.com/doi/abs/10.1080/0164212X.2015.1066220?journalCode=womh20>.

### Review Articles

8. France KG, McLay LK, Hunter JE, France MLS. Empirical research evaluating the effects of non-traditional approaches to enhancing sleep in typical and clinical children and young people. *Sleep Med Rev*. 2018;39:69-81. [PubMed: PM28918314](https://pubmed.ncbi.nlm.nih.gov/28918314/)
9. Martin, C. Evidence-based practice group answers to clinical questions: “use of a weighted blanket as treatment for post-traumatic stress disorder (PTSD), anxiety, or sleep disorder”. Richmond (BC): WorksafeBC Evidence-Based Practice Group; 2018: <https://www.worksafebc.com/en/resources/health-care-providers/guides/use-weighted-blanket-treatment-for-ptsd-anxiety-sleep-disorder?lang=en&direct>. Accessed 2019 Mar 19.
10. Furnell C, Finlay F. G594(P): The use of weighted blankets to modify sleep in attention deficit hyperactivity disorder (ADHD). *Arch Dis Child*. 2016;A354. [https://adc.bmj.com/content/101/Suppl\\_1/A354.1.info](https://adc.bmj.com/content/101/Suppl_1/A354.1.info).