

CADTH Reference List

Interventions for the Improvement of Sleep Quality for Adolescents With Eating Disorders

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Key Messages

- One randomized controlled trial that described the potential clinical benefits and harms of drugs or non-drug interventions that can help to improve sleep quality for adolescents with eating disorders was identified.
- No evidence-based guidelines were identified about the improvement of sleep quality for adolescents with eating disorders.

Research Questions

1. What literature describes the potential clinical benefits and harms of drug or non-drug interventions that can help to improve sleep quality for adolescents with eating disorders?
2. What are the evidence-based guidelines regarding the improvement of sleep quality for adolescents with eating disorders?

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Database of Systematic Reviews, the International HTA Database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were eating disorders and sleep hygiene or disorders. No filters were applied to limit the retrieval by study type. A supplemental search was run for eating disorders, with CADTH-developed search filters applied to limit retrieval to guidelines. Where possible, retrieval was limited to the human population. The search was completed on July 5, 2022, and limited to English-language documents published since January 1, 2017. Internet links were provided, where available.

Selection Criteria

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in [Table 1](#). Full texts of study publications were not reviewed. Open access full-text versions of evidence-based guidelines were reviewed when available.

Results

One randomized controlled trial¹ that described the potential clinical benefits and harms of drug or non-drug interventions that can help to improve sleep quality for adolescents with

Table 1: Selection Criteria

| Criteria | Description |
|----------------------------|---|
| Population | Adolescents diagnosed with an eating disorder |
| Concept | Interventions used to improve sleep for people with eating disorders (e.g., cognitive behavioural therapy, stimulus control therapy, relaxation therapy, sleep hygiene education, sleep restriction, drug therapy) |
| Type of information | Q1: Descriptions of potential clinical benefits (e.g., sleep quality, sleep duration, sleep continuity, daytime impact, change in mental health status) and harms (e.g., adverse events) Q2: Recommendations regarding the use of interventions to improve sleep for adolescents with eating disorders |
| Study designs | Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, evidence-based guidelines |

eating disorders was identified. No relevant health technology assessments, systematic reviews, non-randomized studies, or evidence-based guidelines were identified.

Additional references of potential interest that did not meet the inclusion criteria are provided in [Appendix 1](#).

References

Health Technology Assessments

No literature identified.

Systematic Reviews

No literature identified.

Randomized Controlled Trials

1. Martinez-Sanchez SM, Martinez-Garcia TE, Bueno-Antequera J, Munguia-Izquierdo D. Feasibility and effect of a Pilates program on the clinical, physical and sleep parameters of adolescents with anorexia nervosa. *Complement Ther Clin Pract.* 2020;39:101161. [PubMed](#)

Non-Randomized Studies

No literature identified.

Guidelines and Recommendations

No literature identified.

Appendix 1: References of Potential Interest

Randomized Controlled Trials

Alternative Population – Adults With Excess Weight

2. Fusco SFB, Pancieri AP, Amancio SCP, et al. Efficacy of Flower Therapy for Anxiety in Overweight or Obese Adults: A Randomized Placebo-Controlled Clinical Trial. *J Altern Complement Med.* 2021;27(5):416-422. [PubMed](#)
3. Teong XT, Hutchison AT, Liu B, et al. Eight weeks of intermittent fasting versus calorie restriction does not alter eating behaviors, mood, sleep quality, quality of life and cognitive performance in women with overweight. *Nutr Res.* 2021;92:32-39. [PubMed](#)

Alternative Population – People With Cancer-Induced Anorexia

4. Turcott JG, Del Rocio Guillen Nunez M, Flores-Estrada D, et al. The effect of nabilone on appetite, nutritional status, and quality of life in lung cancer patients: a randomized, double-blind clinical trial. *Support Care Cancer.* 2018;26(9):3029-3038. [PubMed](#)

Protocol Involving Adolescents With Excess Weight

5. Partridge SR, Raeside R, Singleton AC, et al. Text Message Behavioral Intervention for Teens on Eating, Physical Activity and Social Wellbeing (TEXTBITES): Protocol for a Randomized Controlled Trial. *JMIR Res Protoc.* 2020;9(2):e16481. [PubMed](#)

Non-Randomized Studies

Mixed Population – Individuals With Mental Health Conditions

6. Meule A, Riemann D, Voderholzer U. Sleep quality in persons with mental disorders: Changes during inpatient treatment across 10 diagnostic groups. *J Sleep Res.* 29 Apr 2022:e13624. [PubMed](#)
7. Vigna L, Morelli F, Agnelli GM, et al. Hericium erinaceus Improves Mood and Sleep Disorders in Patients Affected by Overweight or Obesity: Could Circulating Pro-BDNF and BDNF Be Potential Biomarkers?. *Evid Based Complement Alternat Med.* 2019;2019:7861297. [PubMed](#)

Unclear Population Age

8. Galasso L, Montaruli A, Mule A, et al. The multidisciplinary therapy in binge eating disorder is able to influence the interdaily stability and sleep quality?. *Chronobiol Int.* 2019;36(10):1311-1315. [PubMed](#)

Protocol

9. Christensen KA, Forbush KT, Elliott BT, Jarmolowicz DP. A single-case multiple baseline design for treating insomnia in eating disorders: The TIRED study. *Int J Eat Disord.* 2021;54(4):652-659. [PubMed](#)

Guidelines and Recommendations

Alternative Population – Adults

10. Palagini L, Manni R, Aguglia E, et al. International Expert Opinions and Recommendations on the Use of Melatonin in the Treatment of Insomnia and Circadian Sleep Disturbances in Adult Neuropsychiatric Disorders. *Front Psychiatr.* 2021;12: 688890. [PubMed](#)
See: Use of Exogenous Melatonin in Eating Disorders (page 10)

Review Articles

11. Christensen KA, Short NA. The case for investigating a bidirectional association between insomnia symptoms and eating disorder pathology. *Int J Eat Disord.* 2021;54(5):701-707. [PubMed](#)
12. Cooper AR, Loeb KL, McGlinchey EL. Sleep and eating disorders: current research and future directions. *Curr Opin Psychol.* 2020;34:89-94. [PubMed](#)
13. McCuen-Wurst C, Ruggieri M, Allison KC. Disordered eating and obesity: associations between binge-eating disorder, night-eating syndrome, and weight-related comorbidities. *Ann N Y Acad Sci.* 2018;1411(1): 96-105. [PubMed](#)