Cognitive Behavioral Therapy for Insomnia (CBT-I) for Breast Cancer: A Meta-Analysis

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Intro & Aims
Insomnia is highly prevalent among patients with breast cancer (BC), with prevalence estimates of 42% to 69%, higher than other cancer sites.

Our review aimed to evaluate
1) the therapeutic effects of CBT-I on insomnia in BC;
2) the effect sizes of CBT-I via different methods of delivery;
3) the durability of CBT-I for short-term (within 6 months) and long-term (12 months) efficacy in patients with BC.

Methods

PRISMA guidelines were followed

Databases:
MEDLINE, Embase, PsycINFO, Web of Science
Search till April, 2020

Inclusion criteria:
- Clearly diagnosed insomnia
- Measures of insomnia severity or sleep quality were reported
- Patients/survivors with breast cancer were the primary population
- CBT-I was used, no other combined active treatment
- Study design was randomized controlled trial (RCT)

Data extraction:
conducted independently by two authors

Primary outcome:
- Insomnia Severity Index (ISI)
- Pittsburgh Sleep Quality Index (PSQI)

Meta-analysis:
- Software used: Comprehensive Meta-Analysis
- Random effects models
- Hedges’g for effect measurement

Risk of bias assessment:
Cochrane criteria

Results

• 14 RCTs with a total of 1363 subjects were included
  - mean age 52-61 years
  - 722 CBT-I vs 641 controls
• Funnel plot indicated low risk of publication bias
• Effect sizes were not different between studies using ISI or PSQI
• The most commonly applied CBT-I components were
  - sleep hygiene
  - stimulus control
  - sleep restriction

Post-intervention effects

Durability of CBT-I effects

Comparison on CBT-I delivery formats

CBT-I components in included studies