Mass General Brigham
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Are Medical Grade Weighted Blankets in Radiation and Infusion Oncology Worth Their Weight?

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Background & Significance

Nurses improve oncology patients' experiences during treatment by reducing their anxiety through non-pharmaceutical interventions and caring practices. The value of these interventions should be measured to assess their impact on patient experience, cost and nursing workflows.

Medical-grade weighted blankets (MGWB):

- Have been shown to reduce anxiety in a variety of settings
- Have limited evidence demonstrating their effectiveness during oncology infusion treatments
- Have not been studied during radiation oncology treatments
- Are expensive and more cumbersome to use, clean and store than traditional blankets

Filling the gaps this study included radiation patients and used repeated measures over time to determine whether the use of MGWB improved the patient experience significantly enough to warrant their use.

Purpose

To determine if the use of MGWB significantly reduced anxiety in patients receiving initial radiation for lung, brain or head and neck diagnoses, and initial anticancer infusions during their first three treatments.

Intervention

Patients starting radiation for lung, brain or head and neck diagnoses and anticancer infusions were offered participation in the study during their education appointments.

- Participants self-reported anxiety was assessed at their first three treatments while using the MGWB:
  - before treatment started
  - after approximately 15 minutes of infusion or the end of a radiation treatment
- At the first assessment patients were asked:
  - if they had a history of anxiety or depression
  - if they had used a weighted blanket previously
- At the third assessment patients were asked:
  - If they would continue to use the weighted blanket during treatment

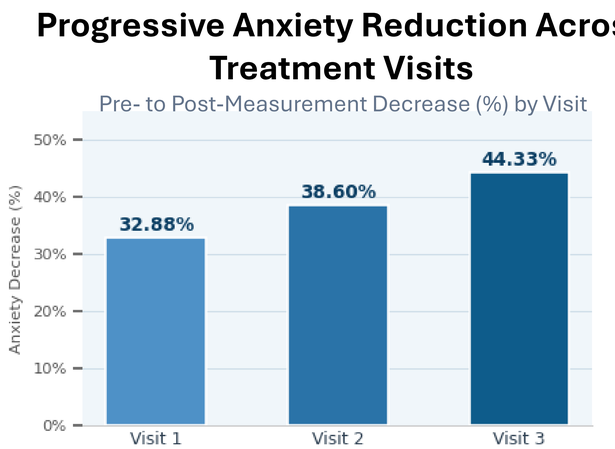
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Results

A total of 22 participants were enrolled in the study:

- 32% were receiving radiation
- 68% were receiving infusions
- 36% had a prior history of anxiety or depression
- 2 participants had a prior history of weighted blanket use
- 59% answered the question about continued use of the banket, of those 77% said they would continue to use the blanket

The results showed a progressive decrease in anxiety from pretreatment to post treatment, improving at each of three visits.



- For those participants with higher anxiety scores, there was a greater improvement in anxiety from pre to post blanket use
- Participants with lower anxiety scores were more likely to decline a MGWB at subsequent visits
- History of anxiety or depression did not affect anxiety scores



Poole, K. (2026). *MGWB Simulation*[Photograph]. Personal.

Discussion

Our results show that for patients with anxiety during initial radiation and infusion treatments MGWBs are a non-pharmacological intervention and caring practice that can reduce anxiety. Assessing anxiety at the start of treatment may indicate which patients would benefit the most from use of a MGWB. While the cost and impact on nursing workflows of MGWBs may be greater than other non-pharmaceutical interventions, MGWBs can be a valuable tool in improving the patient's experience during oncology treatments

Limitations

Limitations of this study included:

- Small sample size
- Recruitment of patients receiving radiation, with fewer eligible diagnoses, was more challenging than recruitment of infusion patients.
- Future studies should include any diagnosis for patients receiving radiation if use of a weighted blanket does not interfere with the treatment



Poole, K. (2026). *MGWB Simulation*[Photograph]. Personal.

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