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## Enhancing Cancer Care: Audio Mindfulness During Radiation Therapy



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Radiation therapy (RT) is a common treatment for cancer, but it often leads to side effects like fatigue, stress, and sleep disturbance. Previous research suggests mindfulness can alleviate these symptoms, but traditional programs may be inaccessible to many patients. A [recent study published in \*Global Advances in Integrative Medicine and Health\*](#) explores the feasibility of delivering a brief audio mindfulness program to prostate cancer patients during RT. The study aims to determine if delivering mindfulness through audio recordings during RT is feasible and beneficial. By testing this approach, the researchers aim to maximise patient and medical team adoption while also assessing its impact on patient-reported outcomes.

### Participant Recruitment and Intervention Protocol

Participants for the study were recruited from the Department of Radiation Oncology at Northwestern Memorial Hospital in Chicago, primarily through direct referrals from medical staff and also via postings in clinic waiting areas and on the cancer center's website. Recruitment procedures involved close collaboration with medical team staff, with a trained research assistant (RA) responsible for directly approaching potential participants in treatment clinics. Individuals meeting the eligibility criteria, which included a diagnosis of clinically localized prostate cancer (PC) and a scheduled course of at least 7 weeks of daily radiation therapy (RT), were referred by designated physicians, nurses, or clinicians. Eligibility criteria also included being at least 18 years old, fluent in English, cognitively intact, and free of serious psychiatric illnesses as determined by the referring physician. However, individuals who reported regular mindfulness meditation practice of three or more times per week over the past month were deemed ineligible. Upon recruitment, participants provided informed consent and Health Insurance Portability and Accountability Act (HIPAA) authorization in accordance with Institutional Review Board (IRB) approved procedures.

After consent, participants received a brief demonstration on how to use the audio equipment and were provided with a one-page handout illustrating its operation. Subsequently, they underwent baseline assessments before being randomly assigned to either the mindfulness or music intervention groups using a computer-based random assignment programme. This randomization was conducted in a 1:1 ratio. Participants and medical staff were then informed of their group assignment. During their daily RT sessions, participants were instructed to collect their audio equipment from the radiation technologist and commence listening just before treatment, continuing until the session concluded. The audio recordings, longer than the longest RT session to ensure coverage, were designed to provide mindfulness or music experiences. Participants were encouraged to choose their preferred audio recording each day, with instructions affixed to the equipment for reference.

### Assessment and Implementation of Audio Mindfulness Intervention

Assessments were conducted at baseline (T1), immediately post-intervention (T2), and at one month (T3) and three months (T4) post-intervention. These assessments included various questionnaires measuring quality of life and symptoms. Participants received compensation in the form of a \$25 gift card after completing each assessment. Feasibility metrics, including enrollment, retention, and programme adherence rates, were tracked throughout the study. Programme modification decisions were informed by participant and medical team feedback, with the aim of optimising the intervention delivery. Phase III involved a pilot randomised controlled trial to assess acceptability and analyse patient-reported outcomes, with a focus on changes in fatigue. Analysis was conducted using general linear models, with age and the number of audio sessions listened to as covariates.

Through an implementation pre-testing approach, the study identified the optimal timing and content for delivering audio-based mindfulness and music programs during radiation therapy (RT) for prostate cancer (PC). It was found that initiating the program on day one of week two of RT for four consecutive weeks was most suitable, balancing effectiveness and participant adjustment. Modifications to the audio programme included increasing the diversity of selections, allowing participants to choose preferred recordings, adjusting content and narration to suit the context, and using male narrators for mindfulness sessions, addressing preferences observed during pre-testing.

### Promising Outcomes for Treatment Efficiency and Accessibility

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The study observed significant improvements in uncertainty intolerance, fatigue, and sleep disturbance among participants in the mindfulness group compared to the music control group, both at four weeks and three months post-intervention. These findings suggest the potential benefits of audio-based mindfulness interventions during RT, a novel approach compared to traditional interventions delivered outside of the treatment setting. Advantages of delivering mindfulness during RT include its efficiency, accessibility, and passive nature, catering to the needs of men undergoing treatment who may prefer individual support without verbal expression. Limitations of the study include its small, mostly Caucasian sample from a single treatment centre, which limits generalizability. Additionally, while initial results are promising, larger and more diverse studies are needed to confirm efficacy and explore the impact of cultural factors.

In conclusion, the study demonstrates the feasibility and acceptability of audio-based mindfulness interventions during RT for PC, with preliminary evidence suggesting improvements in physical and emotional side effects. Further research with larger and more diverse populations is warranted to validate these findings and explore the full potential of this approach in supportive oncology care.

**Source:** [Global Advances in Integrative Medicine and Health](#)

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