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Brief online meditation for women with breast cancer

Submission date
13/11/2026

Recruitment status
No longer recruiting

Registration date
18/11/2026

Overall study status
Completed

Last Edited
17/11/2026

Condition category
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Being diagnosed with breast cancer and receiving treatment can affect a person's emotional well-being, quality of life, and sense of hope for the future. Some people use meditation to help manage stress and difficult emotions, but more research is needed to understand how effective these approaches are. This study aimed to find out whether a short online meditation programme called SOS meditation could improve hope and other aspects of psychological health in women who were receiving treatment for breast cancer or had previously been treated. The researchers compared the meditation programme with a group of participants who did not receive the programme during the study period.

Who can participate?
Women aged 30 to 80 years who were currently receiving treatment for breast cancer or had previously been treated for breast cancer could take part. Participants needed to be able to join online Zoom sessions, receive emails, and wear a Fitbit activity tracker daily for six weeks. Women who already practised meditation regularly were not eligible to participate.

What does the study involve?
Participants who agreed to take part were randomly assigned to one of two groups.
Those in the meditation group took part in a six-week online SOS meditation programme. They attended one instructor-led Zoom session each week, lasting up to 30 minutes. Sessions included a short presentation, an opportunity to ask questions, and a guided meditation exercise. Participants were encouraged to practise meditation at home each day, starting with around 10 minutes per day and increasing to around 15 minutes per day from the third week where possible. They received email reminders, instructional videos, and daily practice logs to support their home practice.
Participants in the comparison group did not receive meditation training during the six-week study period but were offered the programme after the final study assessment.
All participants attended an online orientation session, completed questionnaires at the start of the study, halfway through the programme, and after six weeks, and wore a Fitbit activity tracker throughout the study. The questionnaires assessed hope, anxiety, depression, stress, quality of life, mental health, cancer-related worry, and spiritual well-being. Fitbit data were used to measure sleep, physical activity, and heart rate variability.

What are the possible benefits and risks of participating?
Participants may have experienced improvements in emotional well-being, hope, stress levels, or quality of life through taking part in the meditation programme. However, these benefits could not be guaranteed.
The risks of participation were expected to be low. Some participants may have found it uncomfortable to reflect on their feelings or cancer experiences when completing questionnaires or practising meditation. Participation also required time to attend online sessions, complete questionnaires, wear a Fitbit device, and, for those in the meditation group, carry out daily meditation practice.

Where is the study run from?
The study was run from Johns Hopkins University in Baltimore, Maryland, USA. Recruitment took place through the university, while teaching sessions and study assessments were carried out remotely online.

When is the study starting and how long is it expected to run for?
April 2025 to July 2025.

Who is funding the study?
The study was funded by the Institute for Meditation and Inner Harmony (USA).

Who is the main contact?
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Type(s)
Principal investigator, Public, Scientific

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Study information

Scientific Title

A randomized controlled trial of a low-dose meditation intervention on psychological outcomes for individuals living with breast cancer

Study objectives

Ethics approval required
Ethics approval not required

Ethics approval(s)

Primary study design
Interventional

Allocation
Randomized controlled trial

Masking
Open (masking not used)

Control
Dose comparison

Assignment
Parallel

Purpose
Supportive care

Study type(s)

Health condition(s) or problem(s) studied
Prevention of anxiety and depression among women during breast cancer treatment

Interventions
After consent and confirmation of eligibility, participants were randomly assigned using the randomized function from Excel to a six-week SOS meditation program or a waitlist control group. The trial was open-label, with no blinding of participants. All participants attended a brief online orientation and scheduled check-ins, received a Fitbit activity tracker, and completed study questionnaires at baseline, mid-intervention and at six weeks.
Wearable measures were recorded across the six-week study period.
In the meditation arm, participants attended six online instructor-led sessions via Zoom, each lasting no more than 30 minutes. Weekly training included a short presentation, brief questions to the instructor, and approximately ten minutes of guided meditation. Participants were encouraged to meditate independently for around ten minutes daily at first and, when feasible, increase to fifteen minutes daily beginning in Week 3. Daily emailed practice forms and video instructions supported home practice.

SOS meditation involves closing the eyes, focusing attention inward, and silently repeating a sacred name or, for those preferring a secular approach, a calming word or phrase. Participant-

to-participant interaction was minimized.
The waitlist group received no SOS meditation training during the six-week comparison period and was offered the meditation course after post-intervention assessment. Participants received weekly payments of $20 for submitting practice logs, not based on minutes of meditation performed.

Intervention Type
Behavioural

Primary outcome(s)
1. Dispositional hope measured using the 12-item Herth Hope Index total score at baseline, intervention midpoint, and six weeks (post-intervention)

Key secondary outcome(s)
1. Anxiety symptoms measured using seven-item Anxiety subscale of the Depression Anxiety Stress Scales (DASS-21), using participant self-report scores at baseline (Week 0), intervention midpoint (Week 3), and post-intervention (Week 6)

2. Depressive symptoms measured using seven-item Depression subscale of the Depression Anxiety Stress Scales (DASS-21), using participant self-report scores at baseline (Week 0), intervention midpoint (Week 3), and post-intervention (Week 6)

3. Stress symptoms measured using seven-item Stress subscale of the Depression Anxiety Stress Scales (DASS-21), using participant self-report scores at baseline (Week 0), intervention midpoint (Week 3), and post-intervention (Week 6)

4. Breast cancer-specific quality of life measured using European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire, Breast Cancer Module (EORTC QLQ-BR23). Eight functional and symptom subscales: body image, sexual functioning, sexual enjoyment, future perspective, systemic therapy side effects, breast symptoms, arm symptoms, and upset by hair loss. Subscale scores are transformed to a 0–100 scale at baseline (Week 0), intervention midpoint (Week 3), and post-intervention (Week 6)

5. Global mental health measured using Patient-Reported Outcomes Measurement Information System (PROMIS) Global Mental Health scale, assessed using self-report scores at baseline (Week 0), intervention midpoint (Week 3), and post-intervention (Week 6)

6. Cancer-related worry measured using eight-item adapted Cancer Worry Scale (CWS), using the sum of self-report item scores. Higher scores indicate greater cancer-related worry at baseline (Week 0), intervention midpoint (Week 3), and post-intervention (Week 6)

7. Heart rate variability (HRV) measured using Fitbit-derived nightly root mean square of successive differences (RMSSD), measured in milliseconds during sleep and summarized as weekly mean HRV at daily throughout the six-week study period (Weeks 1–6), summarized weekly

8. Sleep duration and sleep characteristics measured using Fitbit-derived total sleep duration in minutes, sleep-stage durations (light, deep and REM), and sleep efficiency calculated as total sleep time divided by time in bed multiplied by 100, when available at daily/nightly throughout the six-week study period (Weeks 1–6)

9. Daily physical activity measured using daily step counts recorded using Fitbit wearable activity trackers at daily throughout the six-week study period (Weeks 1–6)

10. Meditation practice adherence measured using participant-completed daily meditation logs recording practice completion and minutes spent meditating per session at daily throughout the 42-day intervention period (Weeks 1–6), for the meditation intervention group

11. Spiritual well-being measured using spiritual wellbeing scale at baseline (Week 0), intervention midpoint (Week 3), and post-intervention (Week 6)

Completion date
15/07/2025

Eligibility

Key inclusion criteria
1. Women currently receiving or previously treated for breast cancer at [Johns Hopkins / SKCCC]
2. Able to join Zoom sessions and receive email
3. Willing to wear a Fitbit daily for 6 weeks

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
30 Years

Upper age limit
80 Years

Sex
Female

Total final enrolment
78

Key exclusion criteria
Current regular meditation practice

Date of first enrolment
01/04/2025

Date of final enrolment
01/05/2025

Locations

Countries of recruitment

United States of America

Sponsor information

Organisation
Institute for Meditation and Inner Harmony

Funder(s)

Funder type

Funder Name
Institute for Meditation and Inner Harmony

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available