An online mindfulness-based stress reduction intervention for breast cancer survivors: A randomized trial

Salazar-Alejo M, Ferrigno A, Gutiérrez-Ornelas J, Mesa-Chavez F, Platas A, Verduzco H and Villarreal-Garza C

Background
Recent literature has proposed Mindfulness-Based Stress Reduction (MBSR) as an intervention that can decrease symptom burden in oncologic patients. However, there is paucity of data on the effect of online-delivered interventions despite the potential of this modality to improve access and facilitate adherence to these programs in diverse populations. The aim of this study was to study the effects of an online MBSR intervention on breast cancer (BC) survivors.

Methods
This randomized waitlist-controlled study included women ≥18 years, survivors of non-metastatic BC with 1-5 years since diagnosis, not undergoing chemotherapy or radiotherapy, with internet access, and not currently practicing mindfulness. Participants were invited through Mexican NGOs and by oncologists. Candidates completed a screening survey assessing anxiety by the General Anxiety Disorder-7 (GAD-7) scale, and sociodemographic and clinical data. Study outcomes included anxiety (GAD-7), depression (PHQ-9), worry about disease recurrence (CWS), fatigue level (FACIT-F), insomnia (ISI), and vasomotor symptoms (MENQOL).

Results
97 patients with a median age of 45 years (IQR: 40-51) and a median of 24 m (IQR: 15-36) after diagnosis were included. Most were married (54%), had only public health insurance (49%), and were diagnosed with stage III (33%) or II (32%) BC.

Linear mixed models controlling for insurance, education, and stage

MSBR led to significant reductions in:

- anxiety
- recurrence
- depression
- worry
- insomnia

Randomization
*Stratification by anxiety levels

Waitlist
MBSR

8 weekly online mindfulness sessions by a certified instructor

Both groups completed assessment scales at baseline (BL), 2 months (m), 5 m and 8 m of follow-up.

Conclusion
An online MBSR intervention demonstrated a significant and sustained reduction in anxiety, depression, fatigue, cancer-related worry and insomnia among BC survivors. This modality preserves the benefits of in-person MBSR and is a valuable tool to increase patients’ access to an effective mindfulness practice.