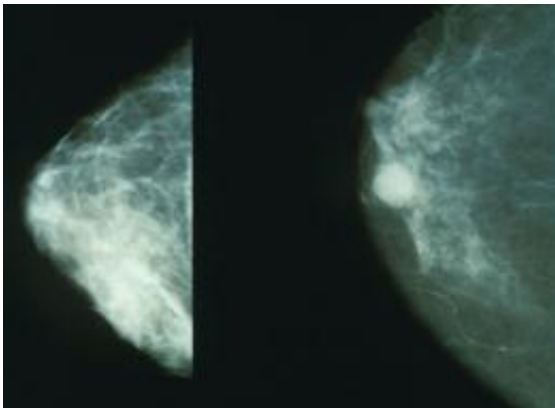


Studies show exercise therapy, acupuncture benefit breast cancer survivors

November 4 2014



Mammograms showing a normal breast (left) and a cancerous breast (right).
Credit: Wikipedia.

Two new studies from the Abramson Cancer Center and the Perelman School of Medicine at the University of Pennsylvania offer hope for breast cancer survivors struggling with cancer-related pain and swelling, and point to ways to enhance muscular strength and body image. The studies appear in a first of its kind monograph from the *Journal of the National Cancer Institute Monographs* focusing on integrative oncology, which combines a variety of therapies, some non-traditional, for maximum benefit to cancer patients.

In the first study, A Hybrid Effectiveness-Implementation Trial of an Evidence-Based Exercise Intervention for Breast Cancer Survivors, Penn

researchers assessed patients participating in "Strength after Breast Cancer," a Penn Medicine-developed, evidence-based exercise and education program for breast cancer survivors. The study was intended to investigate the ease and effectiveness of transporting a research-based treatment into a practice setting. The primary goal of the study was to demonstrate program effectiveness for patients after transition from research to a practice setting. The secondary goal was to understand the implementation process and identify barriers to implementation.

Building upon the team's previous research, results of the new study show several benefits of exercise for participants, including reduced symptoms of lymphedema - a swelling condition in the upper body after [breast cancer treatment](#) that can be caused by the removal of or damage to the body's lymph nodes. Results also showed a lower proportion of women with lymphedema onset (eight percent) or the need for therapist-delivered treatment (19 percent), improvements in upper and lower body strength (13 and 9 percent, respectively), and improvements in body image (16 percent). There were no adverse effects noted for the intervention.

The second aim of the study allowed the team to take the research into a new direction. Led by first author, Rinad Beidas, PhD, assistant professor of Psychiatry, the team sought to identify barriers to implementation of the program. The researchers were able to identify a number of factors that potentially hindered the implementation process, including: intervention characteristics, payment, eligibility criteria, the referral process, the need for champions, and the need to adapt during implementation of the intervention.

"The results of this study are exciting because they demonstrate that an evidence-based exercise and education program for breast cancer survivors can be translated to a new setting while still remaining effective and safe" says Beidas. "Importantly, we were also able to

identify the types of barriers that should be addressed when taking this program to scale, which provides important information translating research into practice, which historically has taken up to 17 years."

Strength after Breast Cancer was developed by the study's senior author Kathryn Schmitz, PhD, MPH, professor of Epidemiology and Biostatistics and a member of the Abramson Cancer Center, based on a 2011 study showing that contrary to what was previously believed, exercise and weightlifting can be extremely beneficial for [breast cancer survivors](#). Administered by physical therapists, Strength after Breast Cancer includes group based exercise classes, and an exercise program for patients to continue at home or a gym.

The program is now available at a broad variety of venues across the Delaware Valley region and beyond. Schmitz also plans to develop an online training course for physical therapists to be able to make the Strength after Breast Cancer program available to survivors across the United States.

In the second study, Expectancy in Real and Sham Electroacupuncture: Does Believing Make It So? researchers at Penn Medicine and other institutions found that electro-[acupuncture](#) ("real" acupuncture) helped reduce joint pain by as much as 40 percent in women with breast cancer, whether the patient expected it to work or not. The study also found that "sham" acupuncture – which involves nonpenetrative needles and no electrical stimulation – provided pain reduction as high as 80 percent if patients had a high degree of expectation that it would work. The study results provide important implications for future treatment of breast cancer patients with joint pain.

"Our study is the first to provide evidence that expectancy has no effect on whether real acupuncture works or not, but that high expectancy does appear to have a positive effect on patients who receive sham

acupuncture," said the study's senior author Jun J. Mao, MD MSCE, an associate professor of Family Medicine and Community Health and director of the Abramson Cancer Center's integrative oncology program, who served as editor of the special monograph. "This issue extends beyond acupuncture and is important to all trials involving pain management that use placebos, such as drugs, procedures, and natural products."

The findings are the result of an investigation that sought to evaluate the relationship between response expectancy and treatment outcome for joint stiffness or joint pain in real and sham acupuncture among 41 [breast cancer patients](#); a control group received neither intervention. Joint stiffness and [joint pain](#) are side effects of aromatase inhibitor, a hormonal therapy used to help treat [breast cancer](#).

In addition, patients who reported pain relief had increased expectancy that it would continue to work over the course of their acupuncture treatment as compared with nonresponders, suggesting that positive responses during the process of real acupuncture increased the expectations of further positive outcomes—what the authors call a "bottom-up" result.

"These findings certainly challenge the notion held by some that acupuncture is 'all placebo,'" said the study's lead author Joshua Bauml, MD, an assistant professor of Medicine in the Abramson Cancer Center. "If it were 'all placebo,' patients receiving real acupuncture who had low expectations that it would work would report little or no reductions in pain. But that's not the case."

Sham acupuncture only produced clinically important pain reduction for those with high onset expectancy. But patients with the highest expectation that it would work reported as much as 80 percent reductions in pain – twice the rate of patients receiving real acupuncture.

(The authors call this a "top-down" result.) Sham acupuncture patients with low baseline expectancy scores did not report any significant pain reduction.

The strong response seen in patients with high expectancy for [sham acupuncture](#) raises the question of whether such [patients](#) could benefit from the nonpenetrative use of needles without electro-stimulation.

Provided by University of Pennsylvania School of Medicine

Citation: Studies show exercise therapy, acupuncture benefit breast cancer survivors (2014, November 4) retrieved 26 April 2024 from <https://medicalxpress.com/news/2014-11-therapy-acupuncture-benefit-breast-cancer.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.