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Betsy J. Becker

University of Nebraska Medical Center, betsyj.becker@unmc.edu

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Evidence for the Use of Exercise in Patients with Breast Cancer to Reduce Cancer-Treatment Related Fatigue

Combined Sections Meeting 2014

Betsy J. Becker, PT, MPT, CLT-LANA

Assistant Professor

Physical Therapy Education

University of Nebraska Medical Center, Omaha, NE

betsyj.becker@unmc.edu



University of Nebraska



FATIGUE

Wagner LI, Cella D. Fatigue and cancer: causes, prevalence and treatment approaches. *Br J Cancer*. 2004;91:822-828.
Hickok JT, Roscoe JA, Morrow GR, Mustian K, Okunieff P, Bole CW. Frequency, severity, clinical course, and correlates of fatigue in 372 patients during 5 weeks of radiotherapy for cancer. *Cancer*. 2005;104:1772-1778.
de Jong N. Prevalence and course of fatigue in breast cancer patients receiving adjuvant chemotherapy. *Annals of Oncology*. 2004;15:896-905.
Blaney JM, Lowe-Strong A, Rankin-Watt J, Campbell A, Gracey JH. Cancer survivors' exercise barriers, facilitators and preferences in the context of fatigue, quality of life and physical activity participation: a questionnaire-survey. *Psycho-oncology*. 2013;22:186-194.

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NCCN National Comprehensive Cancer Network®

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- NCCN Guidelines Panels - Meeting Schedule
- NCCN Categories of Evidence and Consensus
- NCCN Guidelines® Steering Committee

Families should be informed about the management of fatigue as an integral part of total health care

National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology: cancer-related fatigue website. http://www.nccn.org/professionals/physician_gls/f_guidelines.asp#site. Accessed April 9, 2013.

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Institutions should assess the quality of fatigue management in their continuous quality improvement projects

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1. Medicare contracts should reimburse for fatigue management

2. Disability insurance should include coverage for continued effects of fatigue

National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology: cancer-related fatigue website. http://www.nccn.org/professionals/physician_gls/f_guidelines.asp#site. Accessed April 9, 2013.

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Exercise has been suggested for breast cancer survivors as an intervention to reduce CRF both during and after cancer treatment

NCCN Guidelines for Supportive Care

National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology: cancer-related fatigue website. http://www.nccn.org/professionals/physician_gls/f_guidelines.asp#site. Accessed April 9, 2013.



Blaney JM, Lowe-Strong A, Rankin-Watt J, Campbell A, Gracey JH. Cancer survivors' exercise barriers, facilitators and preferences in the context of fatigue, quality of life and physical activity participation: a questionnaire-survey. *Psycho-oncology*. 2013;22:186-194.

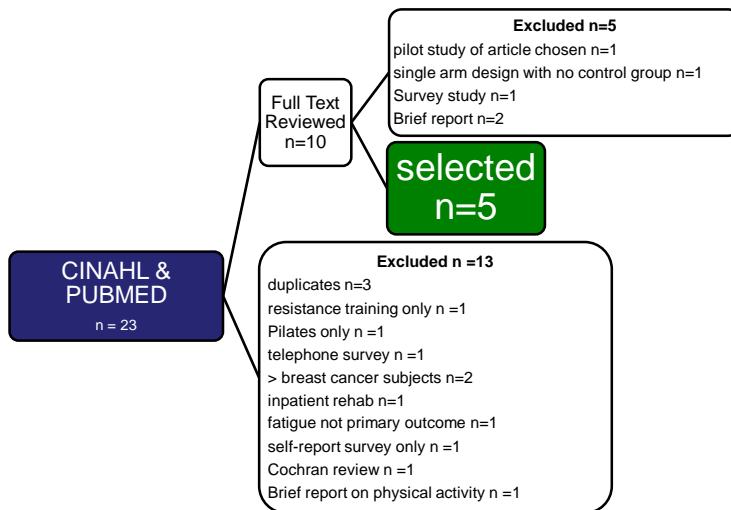


Objective

To summarize the effects
of exercise to reduce
cancer-related fatigue
in patients with
breast cancer



Methods for Study Selection



Study Subjects

Stage I-III

< 2 years from completion of treatment

Exclusion for mental illness, CI to exercise, previously engaged in exercise or recurrent disease



Results

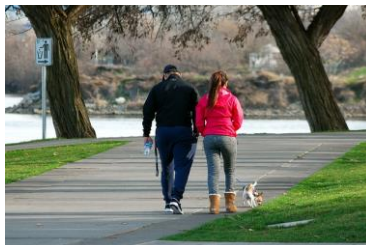
4/5 studies showed an improvement in fatigue

3 different outcome tools used to measure fatigue (Piper Fatigue Survey, FACT-F, Schwartz Cancer Fatigue Scale)

Length and mode of exercise intervention & follow-up varied among each study



Payne J, Held J, Thorpe J, Shaw H. Effect of exercise on biomarkers, fatigue, sleep disturbances, and depressive symptoms in older women with breast cancer receiving hormonal therapy. *Oncology Nursing Forum*. 2008;35:635-642.



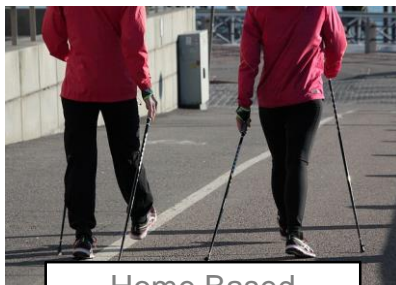
Home based walking
14 weeks
Piper Fatigue Survey



Penttinen HM, Saarto T, Kellokumpu-Lehtinen P, et al. Quality of life and physical performance and activity of breast cancer patients after adjuvant treatments. *Psycho-oncology*. 2011;20:1211-1220.



Wang YJ, Boehmke M, Wu YW, Dickerson SS, Fisher N. Effects of a 6-week walking program on Taiwanese women newly diagnosed with early-stage breast cancer. *Cancer Nursing*. 2011;34:E1-13.



Home Based Walking Program



6 weeks Assessment: FACT-F



*Supervised
Aerobic
Resistance*

*3x/wk
12 weeks*



Milne HM, Wallman KE, Gordon S, Courneya KS. Effects of a combined aerobic and resistance exercise program in breast cancer survivors: a randomized controlled trial. *Breast Cancer Res Treat.* 2008;108:279-288.

Schwartz Cancer
Fatigue Scale



Cantarero-Villanueva I, Fernandez-Lao C, Cuesta-Vargas AI, Del Moral-Avila R, Fernandez-de-Las-Penas C, Arroyo-Morales M. The effectiveness of a deep water aquatic exercise program in cancer-related fatigue in breast cancer survivors: a randomized controlled trial. *Arch Phys Med Rehab.* 2013;94:221-230.



3x/wk for 8 weeks
(6 mo follow-up)
Piper Fatigue Scale



Study Limitations



Be aware of
**important role
of exercise**
intervention for
management of
cancer related
treatment fatigue

**Take Home
Message**



Additional research to
**clarify optimal
dosage** & compare
outcomes of total
daily **physical
activity vs.
formal exercise**

**Take Home
Message**



Evidence supports the
value of exercise
for individuals with
cancer - related
fatigue and the
active role PTs can
play to initiate
exercise programs.

**Take Home
Message**

