

***The Yoga of Awareness Program:***  
**Conceptual Basis, Research, &**  
**Clinical Applications for Symptom**  
**Management**

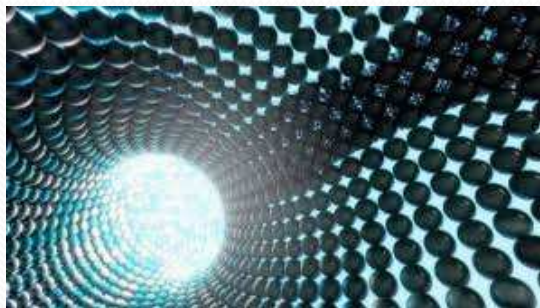
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# Riding the Waves

*“Launch yourself on every wave” ~ Thoreau*

Attuning our attention to the wave-like patterns – arising, cresting, subsiding - of whatever we experience can help us accept and better navigate changes in ways that lead to greater calm, freedom, and joy.





# Foundations of Yoga of Awareness Practice

**Riding the waves** ~ living skillfully, with equanimity - finding poise even amidst the tumult of life's ever-changing challenges

**Simple being** ~ our immediate sense of simply being present, at any given moment; a reliable point you can come back to, to get centered and find your bearings

**Awareness** ~ watching yourself in your daily life with alert interest - noticing sensations, thoughts, feelings, actions - with the intention to understand rather than to judge

**Love** ~ within all of us there is a deep-down goodness which is the basis for qualities such as kindness and carefulness

**Acceptance** ~ being willing to have the experience you are already having, and opening to learning from stressful experiences such as pain



# Yoga of Awareness Format



- 8 session course meeting weekly for 2 hours
  - 4 core classes – practices and foundational principals
  - 3 symptom-based classes with tailored practices  
(e.g., pain, emotional swings, fatigue)
  - 1 review & closure class
- formal and informal home practice
- audio & video recordings, illustrated handouts, yoga mats

# Yoga of Awareness Practices

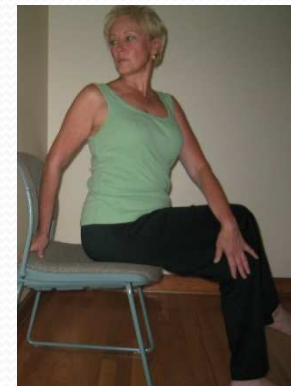
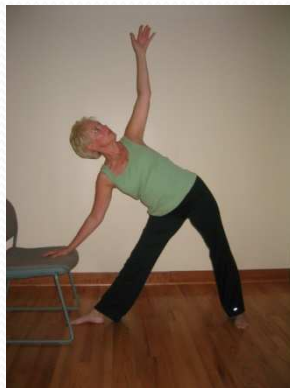
1. gentle postures ~ 40 min
2. meditation ~ 25 min
3. breathing exercises ~ 10 min
4. group discussions (*satsang*) ~ 25 min  
experience of home practice,  
changes during week
5. “self-study” (*swadhyaya*) ~ 20 min  
topics such as the mind-body  
connection





# Yoga of Awareness Poses

seated and standing series + floor-based series



# Meditation & Breathing Practices

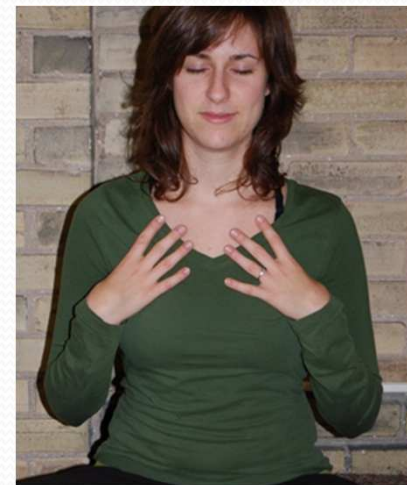
## Meditation Practices

- mindfulness – including noticing *simple being*, the aspect within us that observes
- *yoga nidra* (especially for fatigue)



## Breathing Practices

- 3 part breath: belly, chest, throat
- extended exhalation for mood swings
- breathing into sensation for pain





# Pilot Study: Metastatic Breast Cancer

- *Journal of Pain & Symptom Management*, 2007
- pain, fatigue, emotional distress often most troubling sx's
- uncontrolled, N = 13
- 1<sup>st</sup> behavioral trial to ↓ pain over baseline
- dose/response practice effects on next day:
  - ↓ pain ( $t = -2.19, p < .03$ )
  - ↓ fatigue ( $t = -1.96, p < .05$ )
  - ↑ vigor ( $t = 3.41, p < .01$ )
  - ↑ acceptance ( $t = 2.34, p < .02$ )
  - ↑ relaxation ( $t = 2.18, p < .03$ )





# Yoga of Awareness for Menopausal Symptoms in Breast Cancer Survivors

- *Supportive Care in Cancer*, 2009
- tamoxifen & aromatase inhibitors protective but induce menopause, including “arthralgia”
- hormone replacement tx usually contraindicated
- earlier Iyengar Hatha Yoga RCT in normal women



# Study Design

- funded by Komen Foundation
- wait-list RCT - early stage survivors
- primary outcome: hot flashes
- secondary (0-9 scales): joint pain, fatigue, poor sleep, negative mood, night sweats, symptom-related distress
- 2 wks daily logs via interactive telephone system
- intervention tailored: info on hot flashes, alternate nostril breathing





# Therapeutic Processes/Mechanisms

Vigor



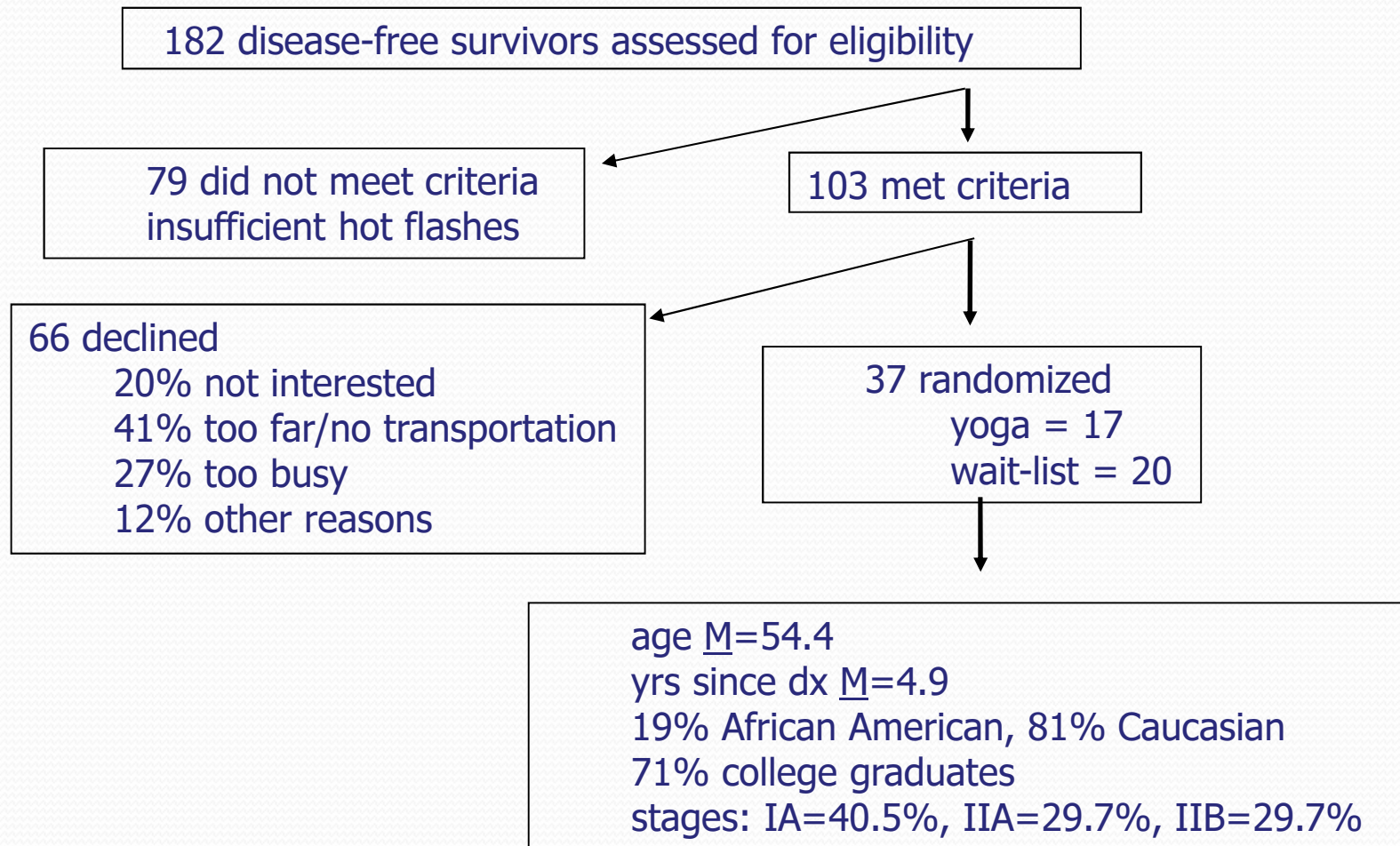
Acceptance



Relaxation



# Sample





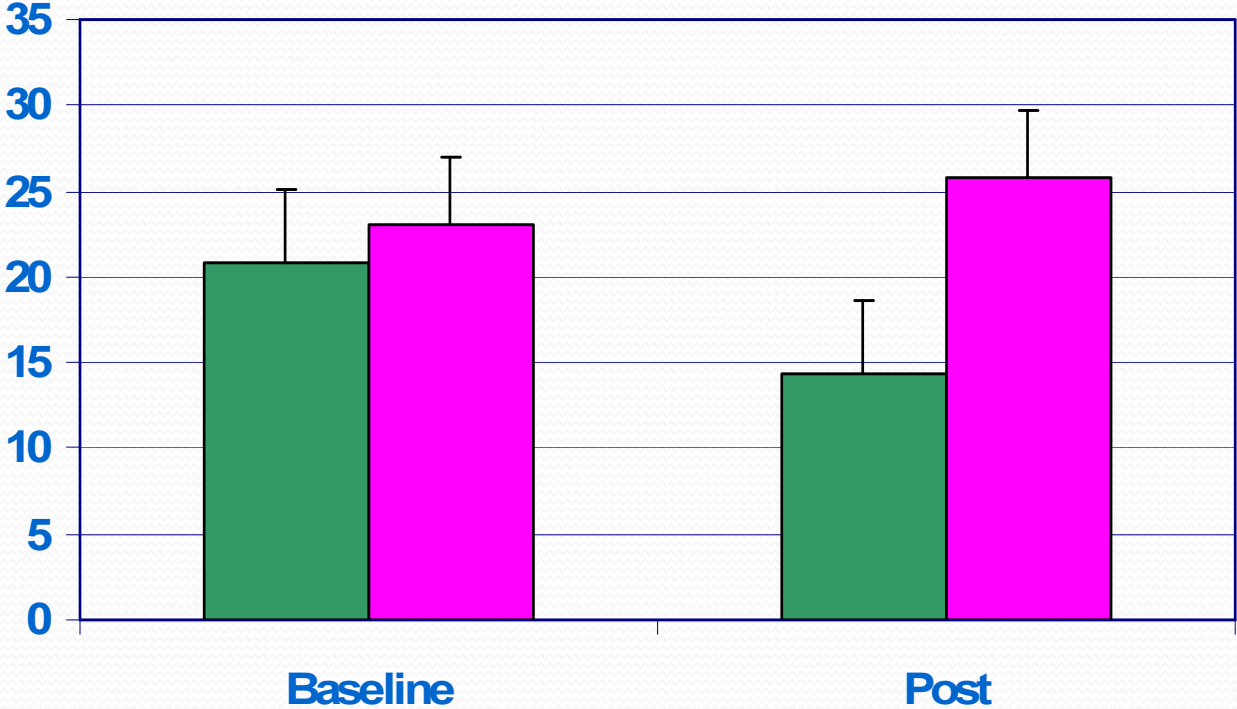
# Results at post-treatment

- no pre-treatment group differences
- intention-to-treat (ITT), multilevel random effects modeling
- **↑** improvements vs controls:
  - hot flash frequency ( $p < .002$ )
  - hot flash severity ( $p < .002$ )
  - total scores ( $p < .001$ )  
(frequency X severity)



# Hot Flash Total (Frequency\*Severity)

■ Yoga ■ Wait List





# Results at post-treatment

➤ also:

joint pain ( $p=.001$ )

fatigue ( $p<.001$ )

sleep disturbance ( $p=.007$ )

symptom-related distress ( $p<.001$ )

vigor ( $p=.005$ )



➤ trends for:

negative mood ( $p=.09$ )

acceptance ( $p=.06$ )



## Results at 3-months follow-up

➤ similar except:

1. sig. differences in negative mood ( $p < .001$ ), relaxation ( $p = .03$ ), acceptance ( $p < .001$ )
2. sleep disturbance no longer sig.



➤ practice effects (similar at post & follow-up):

1. correlated w/ improvements in fatigue & acceptance
2. trends for sleep disturbance, symptom-related distress



# Yoga of Awareness for Fibromyalgia

- Carson et al., *Pain*, 2010; *Clinical J. of Pain*, 2012
- 11-15 million in U.S., mostly women
- highly debilitating
- healthcare costs 3x higher
- limited efficacy of medications, problematic side effects
- calls for exercise and coping skills interventions





## Yoga of Awareness for Fibromyalgia

- earlier RCT in 2007, individually delivered “Relaxing Yoga”
- improved overall symptoms and pain
- limitations:
  - N = 33,
  - not ITT,
  - intervention almost entirely poses & relaxation/shavasana



# Study Design



- funded by OHSU Medical Research Foundation
- wait-list RCT among female patients
- primary outcome: fibromyalgia symptoms
- wait-list group offered program after post
- 3 months follow-up for 1<sup>st</sup> group = post for 2<sup>nd</sup> group

# Sample

382 invited, and 64 attended informational meeting & assessed for eligibility

4 excluded (2 unstable tx,  
1 disabled, 1 yoga > 3x wk)

60 met criteria

7 declined (1 class time, 1 too far,  
4 too busy, 1 family crisis)

53 randomized  
yoga = 25  
wait-list = 28

age  $\bar{M}$ =53.7  
yrs since dx  $\bar{M}$ =11.6  
6% Native American, 4% African American  
57% college graduates  
married 70%, divorced/separated 21%  
employed 42%



# Measures

## Fibromyalgia symptoms

- Fibromyalgia Impact Questionnaire Revised (FIQR)

## Physical performance tests

- strength: Timed Chair Rise
- balance: Sensory Integration for Balance Test

## Daily diaries (7 days via SurveyMonkey)

- pain, fatigue, distress, vigor, acceptance, relaxation (0-10), practice time





## Results at post-treatment

- no sig. baseline differences
- ITT, baseline covariate

FIQR - sig. improved:

- Total, Symptoms, & Overall Impact scales
- Pain
- Stiffness
- Depression
- Poor memory
- Anxiety
- Tenderness
- Balance
- Environment sensitivity
- trend for Sleep



# Results at post-treatment

- most changes clinically sig., e.g.:  
FIQR Total reduction = 31.4%,  
55.6% of yoga subjects  $\geq 30\%$ ;  
pain (FIQR) reduction = 24.1%,  
50.0% of yoga subjects  $\geq 30\%$
- sig. for all diary items
- physical strength sig. improved
- trend for physical balance



# Results: 3 mos. 1<sup>st</sup> group / post 2<sup>nd</sup> group

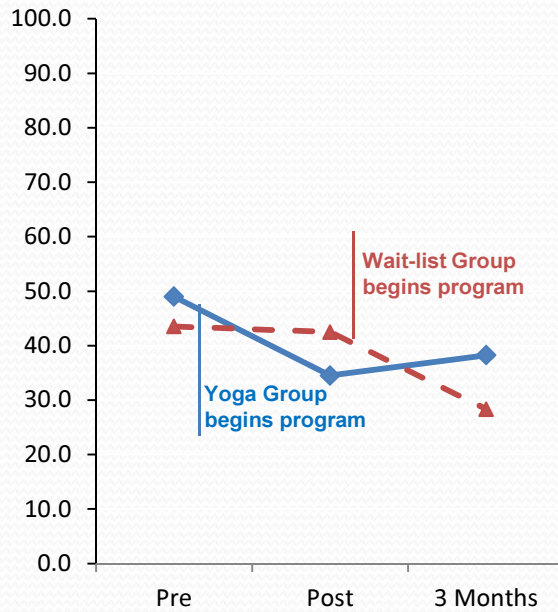
- 1<sup>st</sup> group: sustained clinically and statistically sig. improvements on most measures, & sleep now sig.
- 2<sup>nd</sup> (wait-list) group: replication at clinically and statistically sig. levels of nearly all improvements
- practice effects for poses – sig. more benefit for relaxation, trends for other outcomes



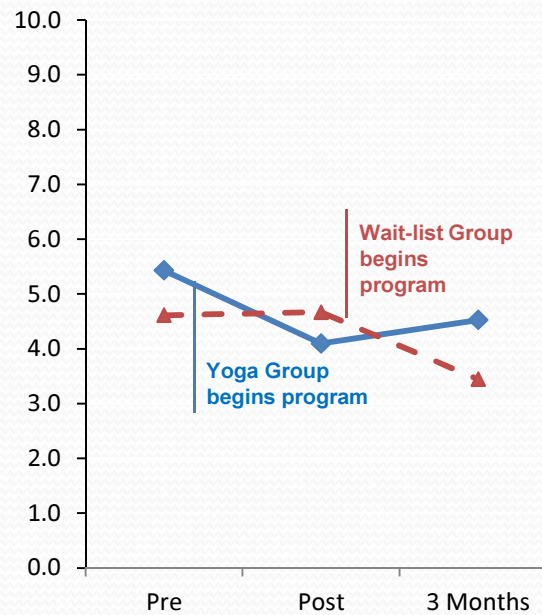


# Results: pre/post/3 months

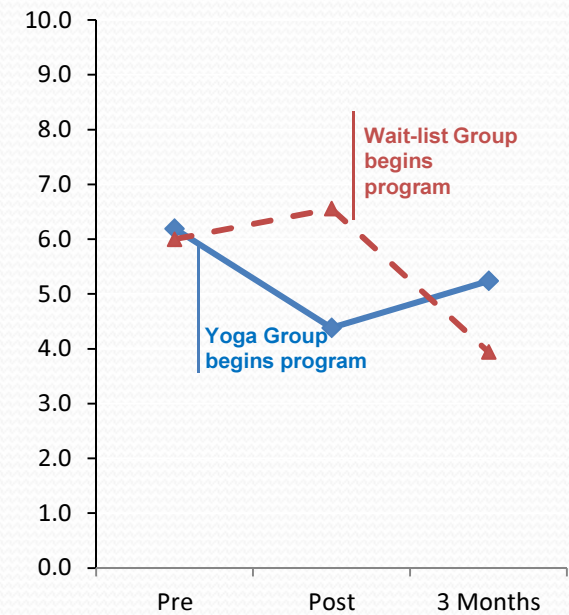
### FIQR Total Score



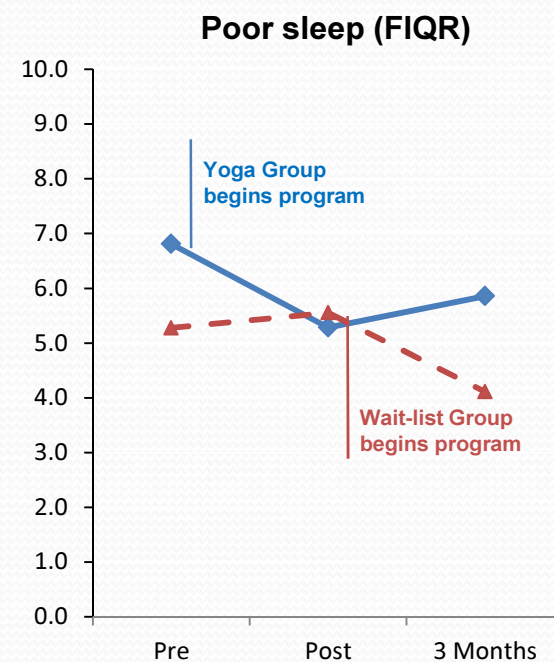
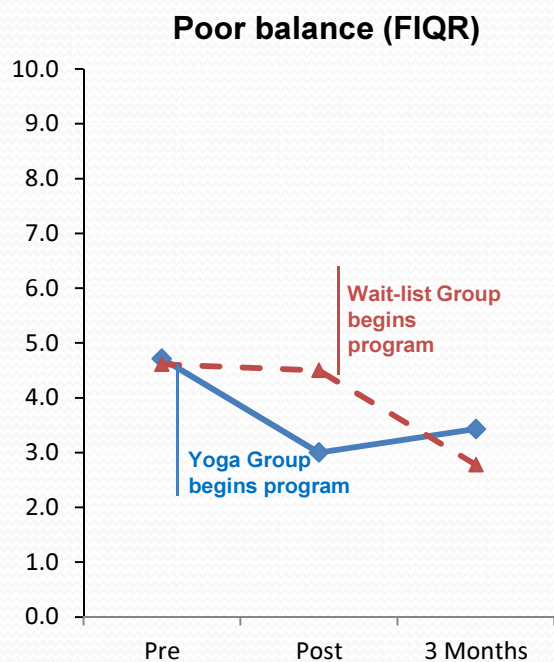
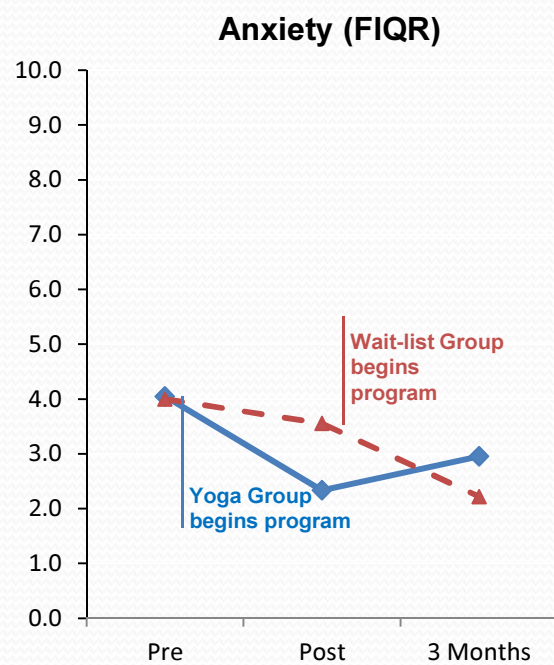
### Pain (FIQR)



### Fatigue (FIQR)



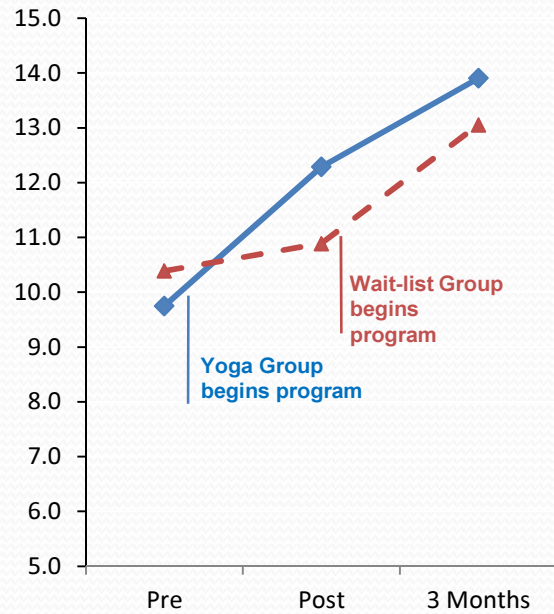
# Results: pre/post/3 months (cont)



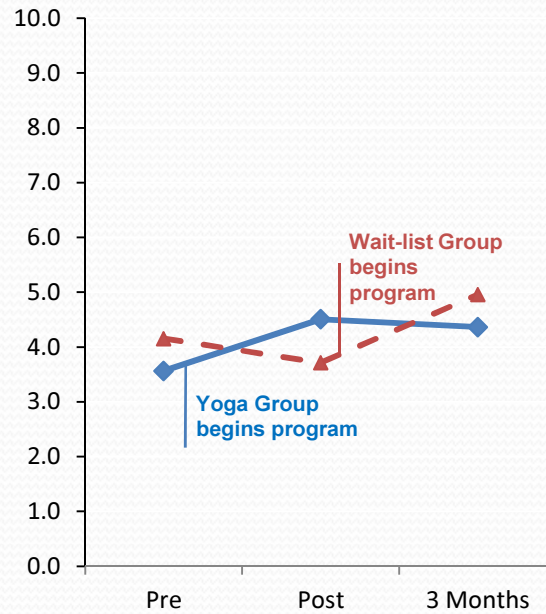


# Results: pre/post/3 months (cont)

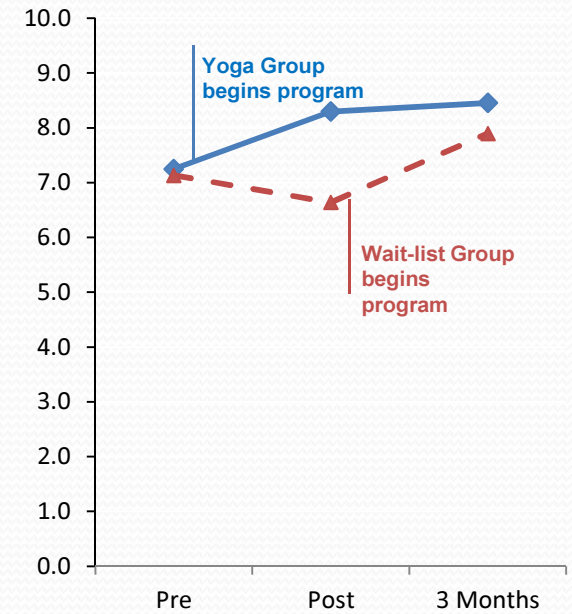
### Strength (Timed Chair Rise)



### Vigor (diaries)



### Acceptance (diaries)





## Focus Group Comments

“I found my body deeply agitated after the last class. It was an agitation I wasn’t familiar with. The next day it was gone and I had enormous strength. I was moving furniture and rearranged my entire bedroom. The next day I felt great, without soreness. I was amazed. I talked to my doctor and told him I wanted to stop taking my pain medication, he agreed, and I haven’t needed it since.”

“I am learning how to be my own best friend. When I rest in simply being, I can let the anxiety wave wash through and learn how to ride it.”



## Consistencies across 3 studies

- ↓ pain, fatigue, other targeted sx's
- ↑ vigor, relaxation, acceptance
- practice effects
- good attendance:  $\underline{M}$  = 7/8, 6/8, 7/8 sessions  
practice rates:  $\underline{M}$  = 21, 30, 40 min per day  
no adverse events in vulnerable populations  
attrition: typical to very low
- limitations:  
small samples,  
no control for non-specific factors,  
mostly self-report measures



# Clinical Applications & Future Directions

- Yoga Teacher Trainings at Duke Integrative Medicine, OHSU



[www.yogaofawareness.org](http://www.yogaofawareness.org)




# Clinical Applications & Future Directions

- Yoga Teacher Trainings at Duke Integrative Medicine, OHSU
- Yoga of Awareness courses in medical centers and communities

CRISER CANCER RESOURCE CENTER  
*A division of Shands Arts in Medicine*

## Yoga of Awareness Program

*Cultivate tools and skills that support greater happiness & ease*



**Eight Tuesdays**  
**5:30 - 7:30 PM**  
**May 7 - June 25, 2013**

*Presented by Tammy Bernard, M.Ed., RYT*  
*Shands Arts in Medicine Yoga Practitioner*

Yoga of Awareness is an evidence-based mind-body program developed at Duke University Medical Center to support cancer survivors. As Reported on CNN, Business Week and USA Today, participants experienced improved sleep, vigor, and relaxation. The course includes:

- Gentle yoga & guided relaxation
- Mindfulness practices & group sharing
- Guided meditation & breathing exercises
- Course manual & audio cds


The program is appropriate for anyone desiring to live more skillfully and is approved for 16 continuing nursing education contact hours and 16 CE's for social workers. Also approved for 16 Florida Massage CE's .

Shands Healthcare is an approved provider of continuing nursing education by the Georgia Nurses Association, an accredited approver by the American Nurses Credentialing Center's COA. Approved provider status does not imply endorsement by the provider, ANCC/GNA of any products displayed in conjunction with this activity.

\$165 for Shands staff  
\$230 for non-staff  
\*Limited Scholarships for cancer survivors

For more information, please email:  
bertano@shands.usf.edu  
or call 352.219.8012

Located in  
Shands Cancer Hospital  
Family Room, 1st floor by piano, RM 1302



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- Yoga Teacher Trainings at Duke Integrative Medicine, OHSU
- Yoga of Awareness courses in medical centers and communities
- Yoga-based Symptom Management continuing education courses for oncology professionals

CONTINUING MEDICAL EDUCATION

**Yoga-based symptom management for oncology professionals:**  
A supportive care training

**When:** April 12-13, 2014  
**Location:** BCCC Library  
Oregon Health & Science University  
Portland, Oregon

**Who:** All oncology care specialties: physicians, nurses, social workers, psychologists, naturopaths, palliative care specialists and others working with cancer patients.

KNIGHT CANCER INSTITUTE  
Oregon Health & Science University

NONPROFIT ORGANIZATION  
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Portland, OR  
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ONCOLOGY

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# Clinical Applications & Future Directions

- Yoga Teacher Trainings at Duke Integrative Medicine, OHSU
- Yoga of Awareness courses in medical centers and communities
- Yoga-based Symptom Management continuing education courses for oncology professionals
- NIH-funded pragmatic trial for opioid-dependent pain patients



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# Clinical Applications & Future Directions

- Yoga Teacher Trainings at Duke Integrative Medicine, OHSU
- Yoga of Awareness courses in medical centers and communities
- Yoga-based Symptom Management continuing education courses for oncology professionals
- NIH-funded pragmatic trial for opioid-dependent pain patients
- NCCAM-funded RCT in metastatic breast cancer

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*Thank you !*