

yoga4cancer

Preliminary Evaluation of a Hospital-Based Pilot and Feasibility Study

Tari Prinster¹, Josi Kytle¹, Patricia Salner², Roberta Garceau², Susan Frassinelli², Julia Kuhlberg², Eric R.Secor²,
yoga4cancer, Ilc¹, and Hartford HealthCare Cancer Institute², Department of Integrative Medicine

BACKGROUND & PURPOSE

The benefits of yoga in improving cancer treatment and survivorship have been investigated in numerous condition with a variety of yoga traditions. Within the HealthCare Cancer Institute, Hartford Hospital, yoga has been offered to cancer patients by numerous practitioners, with different training and expertise. Often this results in difficulty for patients, families and clinicians in selecting an optimal yoga referral and treatment. Integrative Medicine partnered with yoga4cancer – “Y4C” creator Tari Prinster to evaluate establishing Y4C as the “gold standard” program for our cancer community. Therefore our purpose was to assess the feasibility of:

- 1) Training high quality yoga providers in the Y4C method;
- 2) Developing an IRB approved protocol with QOL and Y4C outcomes;
- 3) Recruiting cancer patients into the hospital-based Y4C program.

METHODS & DESIGN

Y4C trained yoga practitioners completed all CITI training. Y4C class protocol delineates yoga frequency (1 class weekly), interval (60 min structured class) and duration (1 class/wk x 8 weeks with follow-up class wk12).

Outcomes include: Edmonton Symptom Assessment Scale, EORTCC QLQ-C30-Ver3, 5-Y4C performance poses (A. Warm up Vinyasa, B. Getting to Hands & Knees, C. Kick-stand tree, D. Chair & Block Test and E. Forward Fold) evaluated via F. Likert scale (0-1 Cannot do to 9-10 easy to perform).

Inclusion criteria: cancer patients (early diagnosis, active treatment, or survivors), > 18 years, willing and available for yoga classes, physician approval.

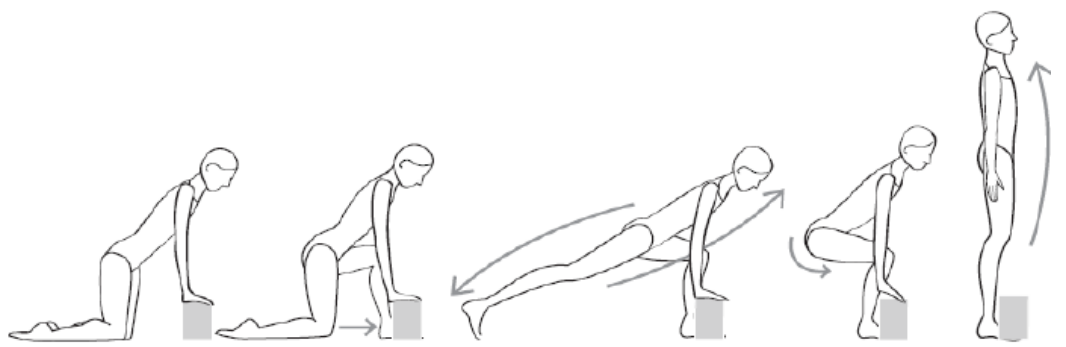
Exclusion: significant co-morbidity; broken/dislocated bones, muscle strain/sprain, disc problems, fragility, significant balance, vertigo, no physician clearance.

METHODS & DESIGN

FIGURE 1. Y4C Functional Yoga Posture Assessments



A. Warm up Vinyasa Seated



B. Getting to Hands and Knees



D. Chair and Block Test



E. Forward Fold

F. Y4C Performance Poses. Participants are asked to identify the ease at which they can perform each of 5 Functional Y4C poses over time.

Performance level	Cannot do pose at all		Difficult to perform pose		Somewhat able to perform pose		Easy to perform		Extremely easy to perform pose	
Y4C Pose	1	2	3	4	5	6	7	8	9	10
Circle best response	1	2	3	4	5	6	7	8	9	10
I. Warm up Vinyasa Seated	1	2	3	4	5	6	7	8	9	10
II. Getting to Hands & Knees	1	2	3	4	5	6	7	8	9	10
III. Kick-stand tree	1	2	3	4	5	6	7	8	9	10
IV. Chair & Block Test	1	2	3	4	5	6	7	8	9	10
V. Forward Fold	1	2	3	4	5	6	7	8	9	10

RESULTS

FIGURE 2. Y4C Cohort Demographics and Assessments (Week 1-4)

A. Y4C Cohort Participant Demographics

Subject Characteristics			Top Cancer Diagnosis		
Female	84%	(n = 42)	Breast	72%	(n = 36)
Male	16%	(n = 8)	Prostate	10%	(n = 5)
			Ovarian	4%	(n = 2)
			Lung	4%	(n = 2)
Race			Liver	2%	(n = 1)
Caucasion	72%	(n = 36)	Rectal	2%	(n = 1)
African America	12%	(n = 6)	Skin	2%	(n = 1)
Asian	10%	(n = 5)	Leiomyosarcoma	2%	(n = 1)
Other	6%	(n = 3)	Thyroid	2%	(n = 1)
Age	61 ± 8.6	years			
*75% of enrolled participants completed 120 Y4C sessions over the initial 4 week period					

B. QOL Symptom Assessment Subset

Response	Week 1	Week 4	p value
Sleep Trouble	2.2 ± 0.16	1.9 ± 0.15	0.039+
Feelings of Depression	1.2 ± 0.3	0.62 ± 0.3	0.027+
Nausea	1.1 ± 0.05	1.3 ± 0.09	0.031-
Do you worry	1.9 ± 0.14	1.6 ± 0.1	0.09+
Feeling of Wellbeing	2.8 ± 0.3	2.2 ± 0.4	0.09+

C. Changes Y4C Functional Pose Assesment

Pose	Wk 1	Wk4	% Change
Warm up Vinyasa Seated	7	7.4	4.3%+
Getting to Hands & Knees	6.7	7.4	9.1%+
Kick-stand Tree	6.5	6.3	1.5% -
Chair & Block Test	6.4	7.1	10.9%+
Forward Fold	6.4	7	9.4%+

CONCLUSIONS

We demonstrated:

- Feasibility to establish an IRB approved Hospital-based “Y4C” pilot program with Y4C trained yoga therapists.
- Demographics and changes in Y4C Poses & QOL can be assessed over time
- Participants are predominately Caucasian, female, early 60s, with breast cancer
- Preliminary improvements of Sleep & Depression from Week 1 to Week 4
- Preliminary improvements in ability to perform Y4C poses form 4 to 11% from Week 1 to Week 4

Efforts are underway to:

- Increase diversity and male participants
- Enroll >100 cancer patients

ACKNOWLEDGEMENTS

Research was supported by grants from Tutu Project and Y4C Foundation. Lululemon provided training grants for our Y4C Yoga therapist training. Hartford HealthCare Cancer Institute & the Bone and Joint Institute provided staffing, administrative resources as well as studio space for Yoga session.