Lessons Learned from the Development and Feasibility of a Web-Streamed Yoga Intervention for Breast Cancer Survivors

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Significance

• In the U.S. there are more than 2.8 million women living with breast cancer.
• Breast cancer survivors often experience many physical and psychological symptoms related to treatment.
• Common symptoms are:
  – Anxiety
  – Arthralgias
  – Weight gain
  – Hot flashes/poor sleep
  – Cognition change
  – Fatigue
Background – preliminary work

- Findings from our previous work exploring the experience of women with breast cancer who were on oral adjuvant therapy suggested that women:
  - Had many distressing concerns related to side effects of treatment.
  - Reported symptoms were difficult to manage.
  - Expressed concerns about other co-occurring chronic illnesses.
  - Sought treatments that addressed overall health – self care, diet, exercise.
Participants reported feeling overwhelmed, isolated and abandoned by the healthcare team in that they felt they were:

- On their own to manage care post aggressive treatment,
- Unsure how to better “care for self” as recommended,
- “Lost” between primary and oncology care.

Participants reported seeking interventions and guidance from their oncology care providers aimed at reducing symptoms associated with treatment.

- They wanted these interventions to be vetted by their oncology providers.
- They wanted them to be available without having to return to the clinic/hospital where they received treatment (Flanagan, Winters, Habin and Cashavelly, 2012; Flanagan, Winters, Habin, Post and Wegler, 2016).
Background – yoga as a self care strategy

- Mounting evidence suggests for persons with cancer, yoga significantly and positively impacts:
  - Well being (Culos-Reed, Mackenzie, Jesse, Zahavich, and Danhauer, 2012),
  - Treatment related joint pain, balance and flexibility (Galantino, Desai, Greene, Demichele, Stricker, Mao, 2011)
  - Sleep quality (Mustain, 2013),
  - Stress hormone and inflammation measures (Simon, 2014)
  - Quality of life (Chandwani et al., 2014),
  - Fatigue and vigor (Bower, Garet, Sternlieb, Ganz, Irwin, Olmstead, and Greendale, 2012).
• Yoga - increasingly recommended and offered for patients with cancer.
• In our setting:
  – Classes are provided by an instructor who has experience working with cancer patients, and is able to modify the class with consideration for cancer and treatment related effects.
  – However, once treatment is complete, individuals are less likely to return to the hospital or clinic for yoga classes.
• While accessible, yoga classes offered at community studios are not likely to be tailored for persons with cancer.
• In general, even those who have practiced yoga before their diagnosis may be hesitant to return to a regular yoga practice if they are experiencing treatment related side effects.
Purpose of Study

• Despite what is known in terms of the benefits of yoga for cancer survivors, there are barriers to its use.

• The purpose of this research was to:
  – Develop a yoga video tailored to breast cancer survivors and created by a multidisciplinary team of breast cancer care providers.
  – To understand breast cancer patients’ overall experience of using a web-yoga video including, feasibility, tolerability and barriers/facilitators to its use.
  – Determine the next steps in the research in terms of exploring the efficacy of a yoga intervention.
Developing the Video

- Developed by a multi-disciplinary team with oncology nurse practitioners (APRNs) leading the team.
- Goal - to address symptoms related to treatment (surgery, radiation, chemotherapy, endocrine (hormone) therapy) for breast cancer.
- The 20-minute video was carefully scripted to include an introduction to yoga and a guided sequence of practice postures and concluded with a guided relaxation.
- The postures incorporated movements/actions similar to those exercises prescribed by surgical providers and/or physical therapists as postoperative standard of care.
Method & Procedure

• Qualitative exploratory study of participants’ reactions to an Internet based self-care yoga program employing content analysis to analyze open-ended telephone interviews.

• Procedure:
  – After IRB approval, we used inclusion criteria to recruit 14 potential participants who were ending aggressive treatment.
  – Participants had to be willing and able to do the web-streamed yoga intervention two times per week over a four-week period and be willing to discuss the experience of what it was like to use the video.
Procedure

• A demographic questionnaire captured variables such as age, stage of breast cancer, primary treatment, co-morbid conditions, caregiver status.

• The yoga video was distributed in a secured email link via the web.

• Participants and were asked to use the video 2x per week x 4 weeks.
Procedure – cont.’

• Follow up contact at the following time points:
  – Patients were called within 2 days of the email to provide technical coaching by a nurse.
  – Week 2: follow-up regarding video use, troubleshooting any problems with streaming or use if needed, open ended interview.
  – Week 4 – open-ended interview to understand overall experience of using the yoga video.
Data Analysis & Findings

- Demographic variables: descriptive statistics
- Qualitative descriptive: content analysis
- 14 post-menopausal women met eligibility criteria, consented and were enrolled, sent the video link.
  - All were Caucasian, English speaking.
  - Average age was 54.
  - Most had little to no experience with yoga.
  - The majority of respondents (n =11) participated in the telephone interview.
Findings – cont.

• Of those who participated:
  – All were able to open the video and view it at home using a smartphone, tablet device, or computer.
  – They found streaming the video in this way convenient.
  – Two participants had minor technical difficulty that was resolved with nurse coaching.
  – The majority of the respondents (n=7) found the video enjoyable but did not use it more than 1-2x after the first week.
  – Six participants indicated that the yoga intervention was not vigorous enough to be physically challenging and of those, three reported doing a regular vigorous exercise and/or yoga practice prior to study participation.
Findings – cont.’

• Many of the participants:
  – Indicated that they did not realize the yoga intervention was a mindfulness based strategy and instead viewed it as an exercise intervention.
  – Reported feeling unsure as to whether yoga helped their most distressing symptoms (mental/emotional stress, fatigue and breast/upper extremity pain).
  – Indicated yoga helped them in some way (relaxing/calming, like the meditative aspect of gentle stretching and slow breathing, reduce joint soreness, improve sleep).

• All participants reported they liked the telephone calls with the nurse.
Helpful comments for us to consider

• “I use it before lunch or whenever the spirit moves me. I play an exercise, do the exercise 10 times then move on to the next.”

• “It has not helped me, not yet, maybe if I did it (yoga) more it would help.”

• “I would have liked more guidance on the relaxation and what it really is.”
Conclusion

• The Internet-streamed approach was an acceptable way of delivering an in-home yoga self-care intervention.

• Misunderstandings about yoga as a mindfulness-based strategy (MBS) as opposed to a vigorous exercise program.

• Two times a week was not effective in achieving the expected effect of a MBS such as yoga.

• More tailored teaching and motivational instruction about yoga as a mindfulness- and wellness-based practice is needed to sustain usage.
Next steps

• We are commencing an efficacy trial that will incorporate:
  – More education about yoga as a MBS strategy
  – Goal will be daily practice
  – Incremental use throughout day will be encouraged – i.e. half in AM and half in PM
  – Coaching at midpoint will be provided
  – Measures will include anxiety, wellbeing, knowing participation in change and open ended questions.
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