Methodologies for ensuring yoga intervention fidelity

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Developing and Testing Yoga Interventions

National Center for Complementary and Integrative Health (NCCIH) Framework for Developing and Testing Mind and Body Interventions

https://nccih.nih.gov/research/blog/347/
Recommended Domains for Yoga Protocol Development

- Style
- Delivery
- Dose
- Components of the Intervention
- Specific Class Sequences
- Facilitation of Home Practice
- Selection of Instructors
  - Measurement of Treatment Fidelity
- Dealing with Modifications

(Sherman, 2012)

Treatment Fidelity

- Treatment fidelity is “the degree to which an intervention was implemented as it was prescribed in the original protocol or as it was intended by the program developers” (p. 69, Proctor 2011).

- Considered when developing the yoga intervention, so that it will ultimately be implemented consistently in a larger trial and be practical to disseminate

(Bellg et al., 2004; Proctor et al., 2011)
Measurement of Treatment Fidelity

NIH Behavioral Change Consortium 5 Treatment Fidelity Categories:

- Design
- Training
- Delivery
- Receipt
- Enactment

(Borelli et al., 2005: Treatment Fidelity Workgroup, NIH Behavioral Change Consortium)

Methods

**Intervention Protocol for Investigating Yoga Implemented During Chemotherapy**

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Inhale raise your arm out to the side keeping it relaxed. Exhale cross the same arm over the body to touch the opposite shoulder, turning the head slightly in the same direction. Inhale bring the arm back out to the side, exhale lower the arm down. Repeat 3-6x alternating sides.

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# Measurement of Intervention Fidelity

<table>
<thead>
<tr>
<th>Overall Relationship</th>
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<tbody>
<tr>
<td>Allowed student to ask questions</td>
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<td>Had a one-pointed focus on the student</td>
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<tr>
<td>Emphasized attention, comfort, and ease throughout the practice</td>
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<td>Allowed space for the student to have his/her own “experience of the practice” during and after each instruction</td>
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<tr>
<td>Skill 1: Awareness</td>
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<td>Guided awareness consistent with the protocol</td>
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<td>Encouraged openness to the experience of the present moment</td>
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<td>Skill 2: Movement</td>
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<tr>
<td>Instructed synchronized breath and movement</td>
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<tr>
<td>Allowed for individual to self-determine movement and modifications</td>
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<td>Taught all movements (or appropriate modifications) in the protocol</td>
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(Sohl, Birdee, Ridner, et al., 2016)

## Tranquil Moments II - Treatment Fidelity

PIs: Brenes & Danhauer, PCORI R-1511-33007

5 Treatment Fidelity Categories:

- Design
- Training
- Delivery
- Receipt
- Enactment

(Borelli et al., 2005: Treatment Fidelity Workgroup, NIH Behavioral Change Consortium)
Tranquil Moments II – Design

- Randomized preference trial for the treatment of worry in anxious older adults (n=500)
- Compared the effectiveness of cognitive-behavioral therapy (CBT) and yoga
- Dose: 20, 75-minute in person group yoga classes held 2x weekly, home practice 15-minutes/5 days per week

(PIs: Brenes & Danhauer, PCORI R-1511-33007)

Tranquil Moments II – Training

- Certified instructors received 2-day training on Relax into Yoga (Krucoff, 2010)
- Instructors demonstrated knowledge by practice teaching in front of the instructor at the training, received book, online materials
- Completed self-evaluation checklist for each session, met quarterly with Co-PI
Tranquil Moments II – Delivery

• Guided by established methods for assessing treatment fidelity of CBT
• Yoga classes were videotaped and 10% randomly selected for review by an investigator not involved in other study activities
• Adapted a CBT measure of adherence to the treatment manual (0=no adherence to 8=optimal adherence) and teaching competency (0=none to 8=excellent)

(Stanley 1996; 2003)

Tranquil Moments II – Receipt/Enactment

Receipt: Observed recipients understanding of yoga in person during the classes

Enactment: Recorded home practice in between sessions on a tracking form

(Stanley et al., 2003, 1996)
Reflections and Recommendations

- Development of intervention protocols and fidelity rating is an opportunity for collaboration
- Highly competent yoga instructors may not all be a good fit for research
- Additional research specific and medical context training needed

Future Directions

- Following support for efficacy of intervention, fidelity is an implementation outcome
- Evaluating cost-effective options for fidelity measurement (CBT; Beidas et al, 2016)
- Fidelity-adaptation: build on evidence-based interventions, adapt to context earlier in the research process (Chambers & Norton 2016)
Questions or Comments?

References


References


The Essential Properties of Yoga Questionnaire (EPYQ)

• Evaluated by trained objective raters
• Facilitates systematically characterizing interventions
• Assesses 14 key dimensions of yoga interventions: acceptance/compassion, bandhas, body awareness, breathwork, instructor mention of health benefits, individual attention, meditation and mindfulness, mental and emotional awareness, physicality, active postures, restorative postures, social aspects, spirituality, and yoga philosophy

(Park, et al., IJYT, 2018)