Connecting a National Community of Mothers: Online Yoga Therapy to Reduce PTS Symptoms after Stillbirth

Jennifer Huberty, PhD
Jules Mitchell, MS
Jeni Matthews, BS
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Introduction

• Stillbirth: fetal death at ≥20 weeks gestation
• “Uncounted, unsupported, understudied” public health problem
• In the United States
  – More than 26,000 stillbirths annually
  – 100 times per day; 1 in 150 pregnancies

(Froen et al., 2011)
Problems

• Physically similar to live births but mental, emotional impacts long lasting

• Depressive symptoms and/or PTSD
  – Excessive weight retention/gain
  – Chronic disease (e.g., heart disease, diabetes)

• Current treatments include
  – Medications
  – Psychotherapy
  – Group therapy
  – Support groups

(Lacasse & Cacciatore, 2014; Thieleman & Cacciatore, 2013; Cacciatore, 2010)
Yoga Therapy

• Reduction in PTS symptoms
  – Body awareness
    • Self-awareness
    • Increased interoception
    • Embodiment
  – Self-compassion
    • Non-judgment
  – Emotional regulation
    • Non-reactivity
    • Mindfulness
  – Quality of life
    • Sleep

(Gong et al., 2015; Dick et al., 2014)
Online Streaming Yoga & Udaya

• Remain anonymous/overcome barriers
  – “Don’t want to go anywhere”
    • See other babies
    • Talk about what happened

• Online streaming popular in US
  – Anytime
  – Anywhere

• UDAYA.com
  – High quality content
  – Experienced instructors
  – Diverse library
  – Affordable
  – Sustainable

(Huberty et al., 2014a; Huberty et al., 2014b; Smith, 2014)
ASU and UDAYA Partnership

- Personal experience with yoga
  - UDAYA member
- Introduction to producer
  - Interest in facilitating research
- Bulgaria
  - Introduction to yoga therapist
Study Design

- **Perinatal Loss Yoga (PLY)**
  - Women who have experienced stillbirth within 2 years (in the United States)
  - No medications
  - Do not regularly practice yoga (<60 min/week)

**Intervention (12-weeks)**
- Baseline questionnaires
- Yoga 60 minutes per week
- Daily/weekly logs
- GENEActiv and Sleep log

**Post**
- Exit survey
- Interviews

**Follow-up**
- Questionnaires at:
  - 8 weeks
  - 16 weeks
  - 24 weeks
Intervention

- Free 12-week membership
- Yoga prescription
  - Minimum 60 min/wk
  - 2 weeks introduction
  - Appropriate progression
### Enrollment/ Baseline Demographics

- **466 participants filled out eligibility questionnaire**
  - 100 eligible
  - 69 enrolled into study
  - 18 dropouts

- **Rolling enrollment**
  - Currently enrolling

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Sample</td>
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<tr>
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<tr>
<td>Dropout</td>
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<tr>
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<td>$21,000-40,000</td>
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<td>$41,000-60,000</td>
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<td>$61,000 per year and above</td>
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## Preliminary Pre-Post Results (N=19)

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<th>Outcome</th>
<th>Mean Pre (SD)</th>
<th>Mean Post (SD)</th>
<th>Sig. (p-value)</th>
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<tr>
<td>IES (PTSD)</td>
<td>31.32 (14.83)</td>
<td>18.79 (8.93)</td>
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<td>43.91 (10.97)</td>
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<td>STAI (Trait Anxiety)</td>
<td>44.64 (11.53)</td>
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<td>EPDS (Depression)</td>
<td>11.16 (4.71)</td>
<td>1.89 (3.86)</td>
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<td>BRS (Resilience)</td>
<td>3.09 (.81)</td>
<td>3.45 (.83)</td>
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<td>MOSSS (Social Support)</td>
<td>4.03 (.57)</td>
<td>4.30 (.62)</td>
<td>.005*</td>
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</table>

*Statistically significant at p<.05

### Interviews:

- **Yoga and Grief**
  - “...I think yoga has the power to sort of help you settle your mind or sort of focus...in on one thing and sort of calm down, and I think I always felt better after I did it”.
  - “...It's allowed me to be able to um kind of focus and escape with like the breathing and listening to yoga instructors, and that's helped a lot”.
Limitations

- Communication
  - No face-to-face, establishing rapport
- Recruitment
  - National, creating partnerships
- Safety
- Race/ethnicity
- Adherence
- Specificity for target populations
  - ‘Corpse’ pose (terminology)
Future Research Studies

• More RCTs with yoga and stillbirth (only 2 published)
• ‘Specific for population’ yoga videos
• Yoga vs. other type of physical activity (walking)
• What is the best dose for mental and physical health benefits
• Online yoga and cancer patients
  – New MPN yoga study (ASU, Mayo Clinic, UDAYA)

(Hubert et al., In Review)
What Does this Mean?

• ‘Bridging the gap’
  – Educate clinicians and health care providers
    • Communicate to patients
  – Affordable physical and mental health care
    • Access to care
  – Adjunct/alternative therapy

(Cacciatore & Flint, 2012, Mallonee et al., 2006)
Please send interested participants to the eligibility survey at:

bit.ly/EligibilityPLY
(case sensitive)
Questions
References