MTF research panel: Cancer and massage

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Overview

• Context
  – Massage for Cancer-Related Fatigue (MCRF)
  – Emory-ASM partnership
  – Massage therapy research
  – Protocol training and assessment model
• MCRF qualitative data
  – Subject perceptions
  – Research massage therapist perceptions

Funding & ethics

• Grant R21AT007090
  – National Center for Complementary & Integrative Health
  – National Cancer Institute
• Ethical approval
  – Emory University Institutional Review Board
  – Winship Cancer Institute Clinical Translational Research Committee
MCRF study design

Interventions

- Manualized, 45-minutes, weekly for 6 weeks
  - The Massage Therapy Pressure Scale
  - SMT: effleurage, petrissage, tapotement; primarily pressure level 3 [level 1 – level 3]; unscented, hypoallergenic lubricant
  - LT: light contact (pressure level 1), each position held 5 seconds

Intervention protocol progression

Intervention environment

- Emory Brain Health Center
- Private, dimly lit treatment room
rMT duties

- treatment room maintenance
- intervention protocol provision
- session documentation
  - Report all discrepancies/deviations
- weekly rMT update
- weekly research personnel meeting participation

Larson 2018b

MCRF treatment outcome overview

- Change from baseline to week 6

<table>
<thead>
<tr>
<th></th>
<th>SMT (n=20)</th>
<th>LT (n=20)</th>
<th>WLC (n=17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>fatigue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFI</td>
<td>↓*</td>
<td>↓*</td>
<td>↑*</td>
</tr>
<tr>
<td>PROMIS</td>
<td>↓*</td>
<td>↓*</td>
<td>no change</td>
</tr>
<tr>
<td>QOL</td>
<td>↑*</td>
<td>↑*</td>
<td>↓*</td>
</tr>
</tbody>
</table>

*Indicates statistical significance

- Significant treatment-by-time interaction
- Large standardized treatment effect sizes

Emory-ASM partnership

- Collaborative partnership between
  - Emory University School of Medicine
  - Atlanta School of Massage

Kennedy 2018, Larson 2018a

Research personnel

Brookman-Frazee 2016, Larson 2018a
Successful partnership factors

- Formation
  - Interpersonal processes
  - Operational processes
- Execution
  - Proximal outcomes
- Sustainability
  - Distal outcomes

Brookman-Frazee 2016, Garland 2015, Larson 2018a

Processes: partnership formation

- Interpersonal
  - Complementary goals
  - Establishing relationships & trust
  - Roles & responsibilities
- Operational
  - Leadership
  - Funding
  - Resources & administrative support
  - Communication methods

Brookman-Frazee 2016, Garland 2015, Larson 2018a

Massage therapy research

- Session vs protocol
- Community practice individualized
  - Scope of practice depends on training
- Monitor fidelity throughout study
- Specialized skill set required to be a research massage therapist (rMT)


Research vs. community practice

<table>
<thead>
<tr>
<th></th>
<th>research massage therapy</th>
<th>community massage practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>provider</td>
<td>research massage therapist</td>
<td>massage therapist</td>
</tr>
<tr>
<td>recipient of treatment</td>
<td>study subject</td>
<td>massage client</td>
</tr>
<tr>
<td>type of treatment</td>
<td>standardized intervention</td>
<td>individualized treatment</td>
</tr>
<tr>
<td>session length</td>
<td>standardized</td>
<td>varies</td>
</tr>
<tr>
<td>boundary negotiation</td>
<td>individuals unwilling to receive the entire protocol are not chosen for participation</td>
<td>ongoing and adaptive</td>
</tr>
<tr>
<td>provider-recipient relationship</td>
<td>mediated by script and research coordinator; constant over time</td>
<td>therapeutic and interpersonal; built over time</td>
</tr>
</tbody>
</table>

Larson 2018a
### Initial training

- Onboarding process developed by rMTs during MGAD
  - Resources
  - Scripts
  - Guides
- 3 to 4 sessions, ~2h each
- Lead by rMT
- Added 4 rMTs during MCRF

### Profile of massage therapists

- Total rMTs on project: 8
- Active rMTs at a given time: 3-6
- Average time on the study
  - 431 days [57 days – length of study]
- Professional experience:
  - 4 years, 5 months, 28 days [5 months, 25 days – 12 yrs 6months 1day]
- Massage therapy education:
  - 7 graduates of Atlanta School of Massage (750 hrs)
  - 1 graduate of Georgia Massage School (500 hrs)

### Fidelity to standardized aspects

- Intervention protocol
- Massage therapy pressure scale
- Draping
- Table/room setup
- Scripts
- Standard operating procedures

### Initial training

<table>
<thead>
<tr>
<th>Protocol Training &amp; Assessment Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial training</strong></td>
</tr>
<tr>
<td>• Massage therapist to research massage therapist (rMT)</td>
</tr>
<tr>
<td>• Additional trainings as needed</td>
</tr>
</tbody>
</table>

### Accessible resources

- Resources available to help rMTs execute tasks in a standardized way & understand research

### Ongoing monitoring

- Assessment fidelity to standardized aspects throughout study

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rMT coverage

<table>
<thead>
<tr>
<th>rMT</th>
<th>visits</th>
<th>subjects 1 rMT</th>
<th>time on study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>83 [24.9%]</td>
<td>3 [21.4%]</td>
<td>500 days</td>
</tr>
<tr>
<td>2</td>
<td>12 [3.6%]</td>
<td>1 [5.9%]</td>
<td>811 days</td>
</tr>
<tr>
<td>3</td>
<td>58 [17.4%]</td>
<td>1 [5.9%]</td>
<td>811 days</td>
</tr>
<tr>
<td>4</td>
<td>1 [0.3%]</td>
<td>0 [0%]</td>
<td>57 days</td>
</tr>
<tr>
<td>5</td>
<td>88 [26.4%]</td>
<td>6 [35.3%]</td>
<td>389 days</td>
</tr>
<tr>
<td>6</td>
<td>48 [14.4%]</td>
<td>3 [17.6%]</td>
<td>265 days</td>
</tr>
<tr>
<td>7</td>
<td>36 [10.8%]</td>
<td>2 [11.8%]</td>
<td>265 days</td>
</tr>
<tr>
<td>8</td>
<td>7 [2.1%]</td>
<td>0 [0%]</td>
<td>292 days</td>
</tr>
</tbody>
</table>

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Active rMT status

Retraining sessions for rMTs

- Quarterly 3-hr sessions
  - Static pressure check
  - Dynamic pressure check
  - Housekeeping
  - Research coordinator & subject feedback
  - Discussion
  - Updates
- 10 retrainings during MCRF

Larson 2018b

Accessible resources

- Intervention protocols
- Guides
- Knowledge repositories
- Pressure scale
- Scripts

Larson 2018a, Larson 2018b
Ongoing monitoring

• Review of session audio recordings
• Quarterly research massage therapist retraining sessions
• Discussions at weekly research personnel meetings
  – Treatment notes from research massage therapist
  – Subject comments
  – Research coordinator feedback

Larson 2018b, Rapaport 2016

Ongoing monitoring—continued

• Was there anything uncomfortable?
• Do you have any comments?
• Did you notice anything different in how the therapist performed the treatment?
• Is there anything you think we should know or any comments you have to help us make this study or future massage studies better? Do you have any comments about your participation in the study?

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Comment occurrence by category

• Few protocol comments
• Few procedural comments

<table>
<thead>
<tr>
<th>comment category</th>
<th>count</th>
<th>volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>neutral</td>
<td>219</td>
<td>63.5%</td>
</tr>
<tr>
<td>positive</td>
<td>69</td>
<td>20.0%</td>
</tr>
<tr>
<td>intervention environment</td>
<td>11</td>
<td>3.2%</td>
</tr>
<tr>
<td>setup &amp; draping</td>
<td>3</td>
<td>0.9%</td>
</tr>
<tr>
<td>protocol</td>
<td>9</td>
<td>2.6%</td>
</tr>
<tr>
<td>hand temperature</td>
<td>10</td>
<td>2.9%</td>
</tr>
<tr>
<td>rMT preference</td>
<td>3</td>
<td>0.9%</td>
</tr>
<tr>
<td>wish</td>
<td>6</td>
<td>1.7%</td>
</tr>
<tr>
<td>somatic</td>
<td>6</td>
<td>1.7%</td>
</tr>
<tr>
<td>different than expected</td>
<td>9</td>
<td>2.6%</td>
</tr>
<tr>
<td>procedural</td>
<td>33</td>
<td>9.6%</td>
</tr>
<tr>
<td>preference</td>
<td>16</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

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Positive subject comment rate

• Both interventions amenable to subjects
• 59.3% subjects had at least one positive comment
• Subjects not asked directly if they enjoyed treatment

<table>
<thead>
<tr>
<th></th>
<th>1 rMT</th>
<th>&gt;1 rMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>total</td>
<td>52.9%</td>
<td>61.9%</td>
</tr>
<tr>
<td>SMT</td>
<td>25.0%</td>
<td>73.9%</td>
</tr>
<tr>
<td>LT</td>
<td>77.8%</td>
<td>47.4%</td>
</tr>
</tbody>
</table>

Larson 2018b
**Time retraining → protocol comment**

<table>
<thead>
<tr>
<th></th>
<th>total</th>
<th>rMT switch</th>
<th>no rMT switch</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>average number of days</strong></td>
<td>39</td>
<td>47</td>
<td>29</td>
</tr>
<tr>
<td><strong>range (days)</strong></td>
<td>15 to 74</td>
<td>15 to 74</td>
<td>20 to 47</td>
</tr>
</tbody>
</table>

- Importance of monitoring both inter- and intra-rMT variability

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**rMT follow-up survey**

1. How satisfied were you with the model used?
2. Did the model help maintain protocol precision and/or methodological rigor during the study?
3. Did use of the model help you learn to be more research informed?
4. What recommendations do you have to improve the model?
5. What were your expectations regarding the experience of being a massage therapist for a clinical trial? How were your expectations the same or different than the actual experience?
6. How did you feel about giving a standardized massage session; i.e., following a prescribed protocol?

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**rMT follow-up survey—continued**

7. How did it feel to give the Swedish massage treatment to your participant?
8. How did it feel to give the light touch treatment to your participant?
9. What recommendations do you have for researchers who are planning future massage studies?
10. What was your motivation or reason for working on a massage research study?
11. What perceptions of the study were shared with you by your colleagues that were not working on the study?
12. Any other comments or suggestions?

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**rMT follow-up survey results**

- Satisfaction with Model
- Clear understanding of role in study
- Suggested improvements:
  - Enhance intervention flow, mechanics, & delivery
  - Opportunities for understanding research process
- Differences between research and community practice challenging
Discussion

- Most subject comments neutral
- rMTs actively engaged in research process
- No protocol comments in end period
  - 2 rMTs hired during end period
- Decrease in protocol and procedural session comment rate
- LT may be easier for rMTs to learn

Limitations

- Small study
- Subjects only asked about differences if rMT switch occurred
- Brevity of comments
- Research massage therapy vs community massage practice

Conclusions

- Model helped maintain protocol fidelity
- Successful completion of MCRF
- Enhanced mutual respect
- Value of collaboration

Future directions

- Use Model in a larger study
- Improve methodology
  - Streamline ongoing monitoring
  - Administer rMT survey as rMTs leave
  - Methods to control hand temperature
- Expand role of research massage therapists
- Incorporate measures of success of partnership
References


Thank you NCCIH for funding this work!