See One, Do One, Treat One: The Effects of OMT Clinical Exposure on Confidence Levels of Medical Students

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Objective

- **Purpose:** To quantify the impact of clinical OMT exposure on students’ self-assessed understanding and comfort in discussing and performing OMT in their rotations and future practices.
- **Hypothesis:** We expected an increase in self-perceived comfort and confidence with increased experience in the OMT clinic.

Methods

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**Subjects:** 4th year NYITCOM osteopathic medical students completing a 4 week OMT elective rotation

**Survey:**

- (1) Initial survey=”Pre-exposure”
- (4) Follow Up surveys (1x each week of rotation)
- Follow Up survey after week 4 = “Post-exposure”
- Multiple-choice, scaled from 0-10
- 0=not at all comfortable/confident
- 10=the most comfortable/confident
- Each survey was identical

**Statistics:** SPSS was used to run a paired T-Test for comparison of weekly data.

Results

<table>
<thead>
<tr>
<th>Item #1</th>
<th>Self-perceived understanding of OMT</th>
<th>Item #2</th>
<th>Comfort discussing OMT principles</th>
<th>Item #3</th>
<th>Comfort performing an osteopathic structural examination</th>
<th>Item #4</th>
<th>Confidence incorporating OMT into their future treatments</th>
</tr>
</thead>
</table>

**Figure 1. Mean Percent Change Pre-to Post-Exposure**

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean % Change</th>
<th>Pre-Exposure Mean</th>
<th>Post-Exposure Mean</th>
<th>P-Value</th>
<th>CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1 (n=14)</td>
<td>22.3% (SD 0.19)</td>
<td>7.43 (SD 1.18)</td>
<td>8.93 (SD 0.92)</td>
<td>p&lt;0.001*</td>
<td>(-0.94, -0.25)</td>
</tr>
<tr>
<td>Item 2 (n=14)</td>
<td>18.5% (SD 0.19)</td>
<td>7.50 (SD 1.29)</td>
<td>8.40 (SD 1.02)</td>
<td>p=0.001*</td>
<td>(-1.86, -0.57)</td>
</tr>
<tr>
<td>Item 3 (n=14)</td>
<td>38.3% (SD 0.36)</td>
<td>6.71 (SD 1.44)</td>
<td>8.86 (SD 0.95)</td>
<td>p&lt;0.001*</td>
<td>(-3.02, -1.27)</td>
</tr>
<tr>
<td>Item 4 (n=14)</td>
<td>27.1% (SD 0.29)</td>
<td>7.00 (SD 1.56)</td>
<td>8.57 (SD 1.22)</td>
<td>p=0.002*</td>
<td>(-2.44, -0.70)</td>
</tr>
</tbody>
</table>

**Findings:** There was a significant increase (*) in mean score from pre-to post exposure for all items.

**Figure 2. Mean Scores Pre-and Post-Exposure**

**Figure 3. Mean Change from Baseline per Week of Exposure**

**Findings:**

- Item #1: There was a significant increase from baseline at week 2
- Item #2: There was a significant increase from baseline at week 2
- Item #3: There was a significant increase from baseline at week 2
- Item #4: There was a significant increase from baseline at week 1

**Discussion**

This study demonstrates one way to give students the tools they need to feel comfortable performing OMT in the wards and on their future patients. This observation can be implemented in the development of osteopathic clinical programming and to conduct future education studies.

**Limitations:** The students rotating through this program did so electively, and the results may not accurately represent the true impact on the average fourth year student.

**Future Research:** We are currently investigating the effect of clinical OMT exposure in 2nd and 3rd year osteopathic medical students. Future studies may investigate similar parameters in OMT naïve students or allopathic students/physicians.

**Conclusion**

The data collected suggests that there is a statistically significant, positive impact on student self-assessed understanding, comfort, and confidence levels after a four week OMT clinical rotation.

- The greatest increase in mean percent change occurred for Item #3 (comfort performing OSE).
- The increase in score from baseline reached significance for 3 items at week 2, suggesting that a minimum of two weeks is necessary for this population of OMS to have an increased level of comfort/confidence.
- Item 4, confidence incorporating OMT into future treatment plans, reached significance after just 1 week.
- When comparing the increase to baseline, the scores on all items stabilized after week 3. This suggests a maximum effect at this time point for students with this level of experience.

**References**


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