Talking the Talk and Walking the Walk: The Development of an Innovative Motivational Interviewing Curriculum for Residents

By: Kim Lazare MD, CCFP, MScCH (Candidate)
Postgraduate Curriculum Lead, NYGH
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Disclosures

I do not have an affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

Travel to this conference was supported by a grant from the Research Travel Fund provided by the Department of Family and Community Medicine at the University of Toronto.
Background

- Family physicians report time constraints and lack of confidence as barriers to providing counseling to their patients (Searight, 2009)

- Undergraduate and graduate curricula still seem to inadequately prepare medical trainees to engage in behaviour counseling with their patients (Spangler, 2002)

- Brief counseling techniques employed by family physicians are economical first-line therapies that are effective for many health problems (Haaga, 2000)
Background

- Motivational Interviewing (MI) is an evidence-based, patient-centred counseling approach to elicit behavior change (Miller and Rollnick, 2002)

- MI core competencies are easily learned and can be applied to most patient concerns involving behavioural change (Rubak, Sandbaek, Lauritzen, & Christensen, 2005)
Research Question

Does the introduction of an 8-hour Motivational Interviewing (MI) curriculum for Family Medicine residents at the University of Toronto result in an improvement in MI core skills, and the confidence to use these skills when counselling patients about behaviour change?
Methods

• Single centre, prospective cohort pilot project using a pre/post test design

• All North York General Hospital (NYGH) R1s and R2s were invited to participate (N=30)

• Theoretical framework for curriculum was based on Miller and Moyers' (2006) eight stages for becoming competent in MI skills

• The study was approved by the NYGH Research Ethics Board and the Toronto Academic Health Sciences Network
<table>
<thead>
<tr>
<th>Session</th>
<th>Curriculum Description</th>
<th>Corresponding Miller and Moyers’ Stage</th>
</tr>
</thead>
</table>
| 1       | 20 min Completion of pre-course tests  
50 min Lecture: The Spirit of MI and Basic Principles  
10 min Break  
30 min ‘A Taste of MI’ role play  
10 min Video: Example of MI | Stage One: The spirit of MI                                                   |
| 2       | 30 min Lecture: OARS, Empathy and the Interview Process  
30 min Video: Identifying OARS using OARS coding sheet and discussion  
10 min Break  
20 min Levels of Reflection exercise  
30 min Role play – Practicing empathy and OARS using cases | Stage Two: OARS – Client-centred, counselling skills                         |
| 3       | 30 min Lecture: Recognizing change talk, Prochaska’s stages of change  
15 min Exercise: Drumming for change talk  
20 min Role Play in Pairs: Practice an approach to evoke motivation to change from patients  
10 min Break  
20 min Video: MI example and discussion  
30 min Role play with real patient (addictions case) | Stage Three: Recognizing and reinforcing change talk  
Stage Four: Eliciting and strengthening change talk |
| 4       | 30 min Interactive lecture: Practical Examples of MI in primary care and putting it all together  
30 min Clinical cases: Residents’ brainstorm session and story weaving  
10 min Break  
30 min Group role play (tap in, tap out)  
20 min Wrap-up and debrief: Completion of post-course tests and feedback from residents | Stage Five: Rolling with resistance  
Stage Six: Developing a change plan  
Stage Seven: Consolidating patient commitment |
Methods

- Pre- and post-course, residents assessed self-confidence in counseling patients using MI
- Simple frequencies and descriptive statistics were calculated
- Total pre- and post-course scores were analyzed using Wilcoxon rank test
Methods

- Residents completed the Helpful Responses Questionnaire (HRQ) (Miller, Hedrick, & Orlofsky, 1991) pre- and post-course

- All identifying participant data was removed

- Pre- and post-course HRQ responses were independently scored by two raters

- Effect sizes of curriculum on HRQ responses was measured using paired t-tests
<table>
<thead>
<tr>
<th>Demographic Data of Study Participants (n=21)</th>
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</thead>
<tbody>
<tr>
<td>Age (mean)</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Residency year</td>
</tr>
<tr>
<td>R1</td>
</tr>
<tr>
<td>R2</td>
</tr>
<tr>
<td>Had previous MI training</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Number of MI sessions attended</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>
## Results

**Table 3**

Residents’ self-assessed self-confidence in MI course competencies measured pre- and post-course (n =21 pairs)

<table>
<thead>
<tr>
<th></th>
<th>Mean before course (SD)</th>
<th>Mean after course (SD)</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence in own MI skills:</td>
<td>4.19 (2.1)</td>
<td>6.71 (1.1)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Importance of using MI skills with patients:</td>
<td>7.43 (1.8)</td>
<td>8.67 (1.6)</td>
<td>0.006</td>
</tr>
<tr>
<td>Confidence in the following MI core competencies:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portrayal of the MI ‘spirit’:</td>
<td>4.67 (2.7)</td>
<td>7.62 (1.3)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Open-ended questions:</td>
<td>7.33 (1.4)</td>
<td>8.81 (0.9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Affirmations:</td>
<td>5.38 (2.1)</td>
<td>8.00 (1.2)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Simple reflections:</td>
<td>4.81 (2.8)</td>
<td>8.52 (1.2)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Complex reflections:</td>
<td>3.76 (2.3)</td>
<td>7.62 (1.2)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Summarizing:</td>
<td>6.38 (2.1)</td>
<td>8.86 (0.9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Recognizing change talk:</td>
<td>2.71 (2.4)</td>
<td>7.57 (1.1)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Responding to change talk:</td>
<td>2.86 (2.6)</td>
<td>7.19 (0.9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Agenda setting:</td>
<td>4.38 (2.2)</td>
<td>7.48 (1.3)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
## Results

Comparison of pre- and post-course HRQ scores for reviewer 1 and reviewer 2

<table>
<thead>
<tr>
<th></th>
<th>Reviewer 1</th>
<th>Reviewer 2</th>
<th>Correlation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean before course (SD)</td>
<td>17.24 (4.3)</td>
<td>16.52 (2.6)</td>
<td>0.909*</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Mean after course (SD)</td>
<td>23.29 (2.6)</td>
<td>21.67 (2.3)</td>
<td>0.898*</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Difference between pre- and post-test scores (95% CI)</td>
<td>6.05 (3.83 - 8.26)</td>
<td>4.19 (2.19 - 6.19)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t score</td>
<td>5.70</td>
<td>4.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significance</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
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</tr>
</tbody>
</table>

*Cronbach’s alpha was 0.944 pre-course and 0.941 post-course*
Discussion

• only 11 (52.4%) of residents participated in all 4 sessions; only 6 (28.6%) of participants were in their PGY2 year

• curriculum not validated by MI 'experts' or those well-versed in curriculum development

• preliminary anonymous resident feedback is encouraging
Discussion

- Attempts to limit bias recall bias

- Two raters achieved consistent pre- and post-course HRQ results with good inter-rater reliability

- The HRQ measures accurate empathy and reflective listening

- No guide as to how to interpret HRQs
Next Steps

- More systematic and robust evaluation of resident learning and practice behaviours

- Multi-site study

- Evaluation of skill acquisition over time i.e. 3 and 6 month follow-up

- Future curriculum changes based on resident participant feedback, curriculum development committee, etc.
Conclusions

- MI core competencies can be easily learned during an 8-hour curriculum

- Statistically significant improvements in MI skill acquisition and confidence in using MI skills

- Interactive curriculum design was central to resident skill acquisition and their enjoyment of the course

- Unchartered and innovative curriculum with promise for spread at the postgraduate and undergraduate levels
Questions?
References