Monitoring the Delivery of Motivational Interviewing: *The UKATT Process Rating Scale (UKATTPRS) and the Motivational Interviewing Treatment Integrity (MITI) Code*

Dr Roger Lakin
Specialty Registrar in Child and Adolescent Psychiatry
Overview

- Methods of rating motivational interviewing
  - More in depth look at the MITI

- Study: Monitoring the Delivery of Motivational Interviewing with Alcohol Dependent Patients: The UKATT Process Rating Scale (UKATTPRS) and Motivational Interviewing Treatment Integrity (MITI) Code
Monitoring of MI
Why are rating scales required for psychosocial interventions?

- How is the therapy delivered?
- Structured psychosocial interventions are likely to deliver better client outcomes than no treatment
  - Protocols may improve outcomes
- Up to 10% clients may be harmed by psychosocial interventions (Moos, 2007)
Rating scales

- Yale Adherence and Competency Scale (YACS), (Corvino, 2000)
- Motivational Interviewing Skills Code (MISC), (Miller, 2000)
- United Kingdom Alcohol Treatment Trial – Process Rating Scale (UKATT-PRS), (UKATT, 2002)
- Motivational Interviewing Treatment Integrity Code (MITI), (Moyers, 2003)
UKATT-PRS

- Valid and reliable scale (Tober, 2008) – measure adherence, competence and discriminates between
  - Motivational enhancement therapy (MET)
  - Social and behavioural network therapy (SBNT)

- 28 Components of therapy are rated for quality and frequency (both on a 0-4 scale)
Motivational Interviewing Treatment Integrity Code (MITI)

- More simple and less time consuming method of rating MI (Moyers, 2003)
  - Reviewing 20 minute segment of video
- CASAA – Centre on Alcoholism, Substance Abuse and Addictions
  - [http://casaa.unm.edu/codinginst.html](http://casaa.unm.edu/codinginst.html)
- MITI is available
  - [http://casaa.unm.edu/download/MITI3_1.pdf](http://casaa.unm.edu/download/MITI3_1.pdf)
- Training resources for the MITI
What does the MITI involve?

<table>
<thead>
<tr>
<th>Global Scores</th>
<th>Behaviour Counts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evocation</td>
<td>Giving Information</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Closed Question</td>
</tr>
<tr>
<td>Autonomy/Support</td>
<td>Open Question</td>
</tr>
<tr>
<td>Direction</td>
<td>Simple Reflection</td>
</tr>
<tr>
<td>Empathy</td>
<td>Complex Reflection</td>
</tr>
<tr>
<td>Global MI Spirit</td>
<td>MI Adherent statement</td>
</tr>
<tr>
<td></td>
<td>MI Non-adherent statement</td>
</tr>
</tbody>
</table>
What does the MITI involve?

**Global Scores**
- Overall score on that dimension (e.g. empathy)

**Behaviour Counts**
- Tally of the specific behaviours
- Scores and then converted to summary scores
  - Percent Complex Reflections
  - Percent Open Questions
  - Reflection-to-Question Ratio
  - Percent Motivational Interviewing Adherent
# Recommended MITI proficiency and competence thresholds

<table>
<thead>
<tr>
<th>Behaviour Count or Summary Score Threshold</th>
<th>Beginner Proficiency</th>
<th>Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Clinician Ratings (Empathy, Collaboration, Autonomy, Direction, Empathy &amp; MI Spirit) – scored from 1-5</td>
<td>Average of 3.5</td>
<td>Average of 4</td>
</tr>
<tr>
<td>Reflection to Question Ratio (R:Q)</td>
<td>1:1</td>
<td>2:1</td>
</tr>
<tr>
<td>Percent Open Questions (%OQ)</td>
<td>50%</td>
<td>70%</td>
</tr>
<tr>
<td>Percent Complex Reflections (%CR)</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>Percent MI-Adherent (%MIA)</td>
<td>90%</td>
<td>100%</td>
</tr>
</tbody>
</table>
MITI Training material

- Seven transcripts of therapists using motivational interviewing with a client with the aim of changing a specific behaviour.

- Two versions
  - Straight text that can be rated and scored
  - Compared with a second script that has been coded or pre-scored by the MITI authors as a “gold standard”.
Bill (therapist): [So this wasn’t an accident or problem or anything; this was just a random...] Complex Reflection (added meaning: not a problem, just random)

John: It was just one of those...

Bill: event that you got caught up in. (not coded again, because it is a fragment of previous reflection)

John: Out of the clear blue-sky kind of things.

Bill: [Did you know they were doing these, or was this kind of a surprise to you?] Closed Question
Display of behaviour counts from training to use the MITI. The rater's score (yellow) is compared with the gold-standard authors score (blue) from seven MI transcripts.
Monitoring the Delivery of Motivational Interviewing with Alcohol Dependent Patients: The UKATT Process Rating Scale (UKATTPRS) and Motivational Interviewing Treatment Integrity (MITI) Code

Authors: Roger Lakin, Gillian Tober & Simon Adamson
United Kingdom Alcohol Treatment Trial (UKATT, 2005a and 2005b)

- Multisite RCT – two forms of brief psychotherapy for alcohol dependence
  - Motivational Enhancement Therapy (MET)
  - Social and Behavioural Network Therapy (SBNT)

- Substantial reductions in alcohol consumption and dependence in both groups
Method

**Sample**

Sixty video recordings of therapists delivering MET in the UKATT were selected from one of the centres. All had been rated using the UKATT-PRS.

Random 20 minute section was rated by the first author (RL) using the MITI.

Inter-rater calibration was done on 10 video recordings by GT and SA.

**Analysis**

- MITI - global scores and behaviour counts
- Concurrent validity
- Discriminant validity
- Predictive validity
Global MITI scores compared with beginner proficiency and competency thresholds

- **Average MITI scores from the UKATT videos**
- **MITI Beginner proficiency threshold (3.5)**
- **MITI Competency threshold (4.0)**

**Scales:**
- Evocation
- Collaboration
- Autonomy/Support
- Direction
- Empathy
- Mt Spirit
Average percentage scores for summary scores of behaviour counts with beginner and competency thresholds

Average MITI scores
Beginner proficiency threshold
Competency threshold

Reflections:Questions ratio

Percentage

% Complex reflections  % Open questions  % MI Adherent

50  50  100
40
70
90
100
0  10  20  30  40  50  60  70  80  90  100
0  0.5  1  1.5  2

Reflections:Questions ratio

Average percentage scores for summary scores of behaviour counts with beginner and competency thresholds
## Results: Concurrent Validity

<table>
<thead>
<tr>
<th>PRS scale</th>
<th>MITI scale</th>
<th>Spearman’s rho</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy (quality score)</td>
<td>Empathy</td>
<td>.322</td>
<td>.015</td>
</tr>
<tr>
<td>Consistency of Problem Focus (quality score)</td>
<td>Direction</td>
<td>.344</td>
<td>.007</td>
</tr>
<tr>
<td>Reflective Listening (frequency score)</td>
<td>Total reflections</td>
<td>.342</td>
<td>.007</td>
</tr>
<tr>
<td>PRS quality mean</td>
<td>Spirit</td>
<td>.217</td>
<td>.116</td>
</tr>
</tbody>
</table>
Results: Discriminant validity

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Mean rating (SD)</th>
<th>N</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MITI Spirit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low working alliance¹</td>
<td>4.00 (0.60)</td>
<td>22</td>
<td>0.355</td>
<td>0.725</td>
</tr>
<tr>
<td>High working alliance</td>
<td>4.07 (0.62)</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRS&lt;sub&gt;MET&lt;/sub&gt; Spirit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low working alliance</td>
<td>2.48 (0.55)</td>
<td>18</td>
<td>2.103</td>
<td>0.043</td>
</tr>
<tr>
<td>High working alliance</td>
<td>2.83 (0.41)</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹Working Alliance Inventory, median split
Results:
Predictive validity

- Attending MET sessions
  - Predicted by MITI ($p = .007$)
  - Not predicted by UKATT-PRS ($p = .527$)

- Neither summary score was able to predict drinking outcome at 3 or 6 months
Results summary

- Global MITI scores for UKATT therapists rate around the competence threshold set by MITI authors
- Empathy, Direction and Total number of reflections (but not Global Spirit of MI score) - showed concurrent validity
- UKATT-PRS mean quality score – able to predict high or low working alliance (WAI)
- MITI MI Spirit - predicted attendance at all MET sessions
Conclusions....

- Motivational interviewing, with its emphasis on principles and spirit, as well as specific behaviours, provides a challenge to the measurement of quality.
- The MITI is an easy to use reliable and valid method of rating the quality of delivery of MI.
- MITI rates MI, UKATT-PRS rates MI plus social based treatment.
- The MITI and the UKATT-PRS ratings of UKATT therapists have areas of concurrent and discriminant validity.
- Studies such as this of different therapist populations provide quality of practice data on which to base MI practice norms. These may then be used as alternative methods to expert opinion in rating MI quality.
Thank you

rogerlakin@hotmail.com
References and further information

- Moyers T, Martin T, Manuel JK, Miller WR, Ernst D. Revised Global Scales: Motivational Interviewing Treatment Integrity 3.0 (MITI 3.0).