What process research tells about Screening and Brief Intervention (SBI) efficacy

Jean-Bernard Daeppen
Nicolas Bertholet
Jacques Gaume

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Lausanne University Hospital, Switzerland

Symposium presented at the 6th Annual Conference of the International Network on Brief Interventions for Alcohol Problems (INEBRIA), 8-9th October 2009, Gateshead, UK
Intervention

Using an **empathic style** avoiding any confrontation

1. Thank for participation, reassure about confidentiality and assure that any decision about treatment belongs to the patient

2. **Give feedback** about alcohol use

3. **Ask patient to comment about feedback**, about the relationship between alcohol use and injury. Ask permission and provide comment regarding the association between alcohol use and risk of injury or other medical conditions

4. **Ask about the “pros” and “cons” of individual’s alcohol use**

5. **Ask about importance to change and readiness to change** on 1-10 scale

6. **Ask what objective patient feels ready** to complete.

7. Depending on patient’s own objective, **affirm patient’s self-efficacy** to achieve his/her objective

8. **Give a summary document** including patient’s own AUDIT score compared to the general population, and objectives
Design

8833 screened

2192 screened positive (24.8%)

1366 randomized (62.3%)

- 486 BI + Assessment
  - 367 follow-up
    - 12-month
- 543 Assessment
  - 429 follow-up
    - 12-month
- 337 Control without assessment
  - 259 follow-up
    - 12-month

Æ Refused: 426
Æ Low risk drinker: 97
Æ Alcohol-related treatment: 41
Æ Other: 262

Æ Low risk drinker: 6592 (74.6%)
Æ Drinking status undetermined: 48
Æ Other: 1

1055 with 12-month follow-up (77.2%)
Symposium overview

• Main results, *JB Daeppen*

• Communication During Brief Intervention, Intention to Change, and Outcome, *JB Daeppen*

• Do counselors’ and patients’ characteristics communication predict change? *J Gaume*

• Counselor behaviors and patient language during brief motivational interventions: a sequential analysis of speech, *J Gaume*

• Counselor skill influences outcomes of brief motivational interventions, *J Gaume*

• Change talk during brief motivational intervention: towards or away from drinking, *N Bertholet*

• So, what does all this tell us? *JB Daeppen*
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## Results

### Baseline to 12-month differences

<table>
<thead>
<tr>
<th></th>
<th>SBI</th>
<th>Control with assessment</th>
<th>Control w/o assessment</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>367</td>
<td>429</td>
<td>259</td>
<td></td>
</tr>
<tr>
<td># Days drinking per week (last 12-mo) (SD)</td>
<td>-0.4 (1.8)</td>
<td>-0.4 (1.8)</td>
<td>-0.5 (2.0)</td>
<td>0.59</td>
</tr>
<tr>
<td># Drinks per drinking occasion (last 12-mo) (SD)</td>
<td>-0.4 (2.5)</td>
<td>-0.5 (2.8)</td>
<td>-0.4 (2.7)</td>
<td>0.90</td>
</tr>
<tr>
<td># Binge drinking occasions per mo (last 12-mo) (SD)</td>
<td>-0.7 (7.0)</td>
<td>-0.7 (6.2)</td>
<td>-0.3 (6.8)</td>
<td>0.58</td>
</tr>
<tr>
<td>AUDIT score (SD)</td>
<td>-1.8 (3.8)</td>
<td>-1.9 (4.6)</td>
<td>-</td>
<td>0.94</td>
</tr>
<tr>
<td>% changed to low-risk drinking at follow-up</td>
<td>35.69</td>
<td>35.20</td>
<td>37.07</td>
<td>0.88</td>
</tr>
</tbody>
</table>


### GEE model predicting change to low risk drinking at 12 month follow-up

<table>
<thead>
<tr>
<th>Covariate</th>
<th>Odds-ratio</th>
<th>95% CI</th>
<th>Wald</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBI</td>
<td>1.00</td>
<td>[0.74 – 1.33]</td>
<td>0.03</td>
<td>0.87</td>
</tr>
<tr>
<td>Men</td>
<td>0.56</td>
<td>[0.41 – 0.76]</td>
<td>14.18</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>18-30 years</td>
<td>0.96</td>
<td>[0.79 – 1.15]</td>
<td>0.22</td>
<td>0.64</td>
</tr>
<tr>
<td>51-65 years</td>
<td>1.47</td>
<td>[1.17 – 1.85]</td>
<td>10.72</td>
<td>0.001</td>
</tr>
<tr>
<td>66+</td>
<td>1.57</td>
<td>[1.06 – 2.35]</td>
<td>4.99</td>
<td>0.025</td>
</tr>
<tr>
<td>AUDIT &gt; 12</td>
<td>1.54</td>
<td>[1.16 – 2.03]</td>
<td>9.24</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Trauma</td>
<td>0.96</td>
<td>[0.74 – 1.24]</td>
<td>0.10</td>
<td>0.76</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>0.74</td>
<td>[0.59 – 0.93]</td>
<td>6.69</td>
<td>0.01</td>
</tr>
</tbody>
</table>

- Covariates determined based on prior SBI research
- GEE model adjusted for clustering of patients by intake research assistant
Null finding also applied for patients previously considered likely to benefit from SBI, i.e., non alcohol-dependent hazardous drinkers and young patients attending the ED after a trauma.

Data did not demonstrate any assessment effect.

Limitations to the efficacy of SBI observed may be explained by:

- The setting: a busy environment, noisy, frequent interruptions may hinder the empathic style of SBI.
- A large proportion of young patients with minor trauma who may be using ED as a primary care.
- A single intervention without booster session, without continuous relationship between patient and provider.
## Symposium overview

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- **Communication During Brief Intervention, Intention to Change, and Outcome, *JB Daeppen***
- Do counselors’ and patients’ characteristics communication predict change? *J Gaume*
- Counselor behaviors and patient language during brief motivational interventions: a sequential analysis of speech, *J Gaume*
- Counselor skill influences outcomes of brief motivational interventions, *J Gaume*
- Change talk during brief motivational intervention: towards or away from drinking, *N Bertholet*
- So, what does all this tell us? *JB Daeppen*
Communication During Brief Intervention, Intention to Change, and Outcome

Jean-Bernard Daeppen, MD
Nicolas Bertholet, MD
Gerhard Gmel, PhD
Jacques Gaume, MA

SUMMARY. Objectives: To explore the relationship between patient’s intention to change regarding future alcohol consumption following brief alcohol intervention (BAI) and changes in alcohol consumption 12-months later and the communication characteristics between patient and counselor during BAI.
<table>
<thead>
<tr>
<th>Intention</th>
<th>Decrease (N=134)</th>
<th>No decrease (N=233)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekly drinking amount</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline, Mean (SD)</td>
<td>15.6 (14.0)</td>
<td>11.5 (9.2)</td>
<td>0.01 (w)</td>
</tr>
<tr>
<td>12-month follow-up, Mean (SD)</td>
<td>12.5 (16.1)</td>
<td>9.9 (8.4)</td>
<td>0.97 (w)</td>
</tr>
<tr>
<td>Baseline to 12-month difference, Mean (SD)</td>
<td>3.1 (13.3)</td>
<td>1.5 (9.0)</td>
<td>0.02 (w)</td>
</tr>
<tr>
<td><strong>Heavy drinking episodes per month</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline, Mean (SD)</td>
<td>6.0 (7.9)</td>
<td>3.4 (5.6)</td>
<td>0.00 (w)</td>
</tr>
<tr>
<td>12-month follow-up, Mean (SD)</td>
<td>2.9 (6.4)</td>
<td>3.5 (5.7)</td>
<td>0.83 (w)</td>
</tr>
<tr>
<td>Baseline to 12-month difference, Mean (SD)</td>
<td>2.3 (8.4)</td>
<td>-0.1 (6.0)</td>
<td>0.00 (w)</td>
</tr>
<tr>
<td><strong>AUDIT Score</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline, Mean (SD)</td>
<td>11.2 (6.1)</td>
<td>7.9 (3.5)</td>
<td>0.00 (w)</td>
</tr>
<tr>
<td>12-month follow-up, Mean (SD)</td>
<td>8.3 (6.1)</td>
<td>6.6 (3.4)</td>
<td>0.03 (w)</td>
</tr>
<tr>
<td>Baseline to 12-month difference, Mean (SD)</td>
<td>2.8 (5.7)</td>
<td>1.3 (3.5)</td>
<td>0.00 (w)</td>
</tr>
<tr>
<td><strong>Readiness Rulers Scores (baseline)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Importance [1-10], Mean (SD)</td>
<td>5.2 (2.5)</td>
<td>2.9 (1.9)</td>
<td>0.00 (w)</td>
</tr>
<tr>
<td>Readiness [1-10], Mean (SD)</td>
<td>5.7 (2.4)</td>
<td>3.2 (2.6)</td>
<td>0.00 (w)</td>
</tr>
<tr>
<td><strong>Counselor subjective evaluation of BAI effectiveness (baseline)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% &quot;rather effective&quot; or &quot;very effective&quot; (N)</td>
<td>71.6 (96)</td>
<td>27.8 (64)</td>
<td>0.00 (c)</td>
</tr>
</tbody>
</table>

Note: (c) = Pearson's Chi Square test, (w) = Wilcoxon W test.
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BRIEF ALCOHOL INTERVENTIONS: DO COUNSELLORS’ AND PATIENTS’ COMMUNICATION CHARACTERISTICS PREDICT CHANGE?

JACQUES GAUME*, GERHARD GMEL, and JEAN-BERNARD DAEPPEN

- Describe intervention content
- Identify communication characteristics of patients and counsellors which predict change on alcohol consumption 12 months later
Coding process

486 SBI

166 Tape-recorded

33 Lost to follow-up
25 Incomplete records
7 Mismatching codes
3 Insufficient French level
1 Patient partner intrusions
97 Successfully coded

No significant differences as regard alcohol use and socio-demographic data
1. Global ratings (7-points Likert scale):
   - overall impression of counselor Acceptance, Empathy and MI Spirit
   - patient highest level of Self-exploration

2. Behavior counts:
   - Counselor - 19 categories
     Advise with permission, Advise without permission, Affirm, Confront, Direct, Emphasize control, Facilitate, Filler, Giving information, Closed question, Open question, Raise concern with permission, Raise concern without permission, Simple reflections, Complex reflections, Reframe, Structure, Support, and Warn
   - Patient - 8 categories
     Ability or inability to change, Commitment to change or not to change, Desire to change or not to change, Need to change versus lack of need for change, or a need not to change, Reasons to change or reasons not to change, Taking steps toward or away from change, Neutral/follow, Questions
Global scores

- Acceptance: 5.9 (Counsellor)
- Empathy: 5.5 (Counsellor)
- MI Spirit: 5.5 (Counsellor)
- Self-exploration: 5.2 (Patient)
Counsellor behaviour counts

- Advise with permission: 0.7
- Advise w/o permission: 0.4
- Affirm: 3.9
- Confront: 0.5
- Direct: 0.6
- Facilitate: 0.0
- Filler: 0.0
- Giving Information: 0.0
- Question Closed: 0.0
- Question Open: 0.0
- Reflect Simple: 0.0
- Reflect Complex: 0.0
- Reframe: 0.0
- Structure: 0.4
- Support: 0.3
- Warn: 0.0
Patient change talk average strength

Examples:

« I absolutely don’t want to quit » → Desire -5
« I think I can stop drinking every week-end » → Ability +2
Baseline to 12-month difference in weekly drinking amount

Significant correlations ($p<0.05$)

<table>
<thead>
<tr>
<th></th>
<th>Kendall tau-b</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counsellor</td>
<td>Empathy [Likert scale 1-7]</td>
<td>0.16</td>
</tr>
<tr>
<td>Patient</td>
<td>Ability / Inability to change [-5 to +5]</td>
<td>0.21</td>
</tr>
</tbody>
</table>
Baseline to 12-month difference in weekly drinking amount

Multiple linear regression model

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Robust Std. Err.</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-19.29</td>
<td>14.26</td>
<td>0.18</td>
</tr>
<tr>
<td><strong>Adjustment variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.00</td>
<td>0.07</td>
<td>0.96</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.03</td>
<td>1.49</td>
<td>0.98</td>
</tr>
<tr>
<td>AUDIT Score &gt; 12</td>
<td>1.17</td>
<td>3.80</td>
<td>0.76</td>
</tr>
<tr>
<td><strong>Counselor Behaviors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy [Likert scale 1-7]</td>
<td>3.48</td>
<td>2.19</td>
<td>0.12</td>
</tr>
<tr>
<td><strong>Patient Behaviors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability / Inability to change [Average Strength, +5 to –5]</td>
<td>2.78</td>
<td>1.41</td>
<td><strong>0.05</strong></td>
</tr>
</tbody>
</table>
Baseline to 12-month difference in binge drinking episodes per month

Significant correlations ($p<0.05$)

<table>
<thead>
<tr>
<th></th>
<th>Kendall tau-b</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Counsellor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy [Likert scale 1-7]</td>
<td>0.18</td>
<td>0.03</td>
</tr>
<tr>
<td>Advise with permission [Freq]</td>
<td>0.15</td>
<td>0.05</td>
</tr>
<tr>
<td>Affirm [Freq]</td>
<td>0.21</td>
<td>0.005</td>
</tr>
<tr>
<td><strong>Patient</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability / Inability to change [-5 to +5]</td>
<td>0.17</td>
<td>0.02</td>
</tr>
<tr>
<td>Taking steps toward change / away from change [-5 to +5]</td>
<td>0.21</td>
<td>0.004</td>
</tr>
</tbody>
</table>
### Baseline to 12-month difference in binge drinking episodes per month

Multiple linear regression model

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Robust Std. Err.</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constant</strong></td>
<td>-4.99</td>
<td>7.26</td>
<td>0.49</td>
</tr>
<tr>
<td><strong>Adjustment variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.02</td>
<td>0.03</td>
<td>0.56</td>
</tr>
<tr>
<td>Sex</td>
<td>0.90</td>
<td>0.94</td>
<td>0.34</td>
</tr>
<tr>
<td>AUDIT Score &gt; 12</td>
<td>1.05</td>
<td>2.46</td>
<td>0.67</td>
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<tr>
<td><strong>Counselor Behaviors</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Empathy [Likert scale 1-7]</td>
<td>-0.09</td>
<td>1.39</td>
<td>0.95</td>
</tr>
<tr>
<td>Advise with permission [Frequency]</td>
<td>0.06</td>
<td>0.69</td>
<td>0.93</td>
</tr>
<tr>
<td>Affirm [Frequency]</td>
<td>0.48</td>
<td>0.28</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Patient Behaviors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability / Inability to change [Average Strength, +5 to –5]</td>
<td>0.39</td>
<td>0.72</td>
<td>0.59</td>
</tr>
<tr>
<td>Taking steps toward change / away from change [Average Strength, +5 to –5]</td>
<td>0.87</td>
<td>0.78</td>
<td>0.27</td>
</tr>
</tbody>
</table>
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• So, what does all this tell us? *JB Daeppen*
Address SBI process by analyzing how do counselor and patient communication behaviors articulate during session

- Do MI-consistent behaviors lead to CT and MI-inconsistent behaviours to patient resistance?
- How do counselors respond to patient CT and resistance?
Eliciting change talk has been seen as an important precursor of real change in the MI theory (Miller & Rollnick, 1991; 2002).

i.e. patients saying they

- want,
- need,
- are able,
- have reasons,
- commit,
- are taking steps to change

will probably change actually.

Counselor behaviors – Patient change talk

- **Causal chain hypothesis:**
  - counselor behaviors
  - patient change talk
  - actual change

- **Only 1 study (MI sessions):** Moyers and Martin, 2006
  - counselor behaviors consistent with MI theory more likely to be followed by change talk
  - counselor behaviors inconsistent with MI theory more likely to be followed by patient resistance
Methods

- **Counselor behaviors summarized in 3 categories:**
  - **MICOMICO** MI-consistent behaviors
    (advise with permission, affirm, emphasize control, open question, simple and complex reflections, reframe, and support)
  - **MIINMIIN** MI-inconsistent behaviors
    (advise without permission, confront, direct, raise concern without permission, and warn)
  - **OtherOther** Other categories of counselor behaviors
    (facilitate, filler, giving information, closed question, raise concern with permission, and structure)

- **Patient language summarized in 3 categories:**
  - **CTCT** Change talk
    (Expression of Ability, Commitment, Desire, Need, Reasons to change, or Taking steps toward change)
  - **CCTCCT** Counter change talk
    (Expression of Ability, Commitment, Desire, Need, Reasons not to change, or Taking steps away from change)
  - **F/AF/A** Following and neutral utterances / patient questions
### Observed frequencies for each transition type

<table>
<thead>
<tr>
<th>Initial event</th>
<th>Subsequent event</th>
<th>Counselor</th>
<th>Patient</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MICO</td>
<td>MIIN</td>
<td>Other</td>
</tr>
<tr>
<td>Counselor</td>
<td>MICO</td>
<td>324</td>
<td>19.5</td>
<td>306.5</td>
</tr>
<tr>
<td></td>
<td>MIIN</td>
<td>11.5</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>216</td>
<td>16.5</td>
<td>767.5</td>
</tr>
<tr>
<td>Patient</td>
<td>CT</td>
<td>872</td>
<td>21.5</td>
<td>336</td>
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<tr>
<td></td>
<td>CCT</td>
<td>668.5</td>
<td>23</td>
<td>205</td>
</tr>
<tr>
<td></td>
<td>F/A</td>
<td>876</td>
<td>33.5</td>
<td>512.5</td>
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<tr>
<td>Totals</td>
<td></td>
<td>2968</td>
<td>116</td>
<td>2140.5</td>
</tr>
</tbody>
</table>

Scores are averaged between the 2 coders.

- **MICO** = Motivational Interviewing Consistent
- **MIIN** = Motivational Interviewing Inconsistent
- **Other** = Other counselor skills
- **CT** = Change Talk
- **CCT** = Counter Change Talk
- **F/A** = Follow/neutral or ask statements
Counselor to Patient transition likelihood (ORs)

- **MI-Consistent** to **MI-Consistent**: Odds Ratio = 1.46 (statistically significant)
- **MI-Consistent** to **Change Talk**: Odds Ratio = 1.60 (statistically significant)
- **MI-Consistent** to **Counter Change Talk**: Odds Ratio = 0.50 (statistically significant)
- **MI-Consistent** to **Neutral / Follow / Ask**: Odds Ratio = 0.56 (statistically not significant)
- **MI-Consistent** to **Other counselor behaviors**: Odds Ratio = 1.69 (statistically significant)

- **Change Talk** to **MI-Consistent**: Odds Ratio = 0.94 (statistically significant)
- **Change Talk** to **Change Talk**: Odds Ratio = 1.92 (statistically significant)
- **Change Talk** to **Counter Change Talk**: Odds Ratio = 0.72 (statistically significant)
- **Change Talk** to **Neutral / Follow / Ask**: Odds Ratio = 0.61 (statistically not significant)
- **Counter Change Talk** to **MI-Consistent**: Odds Ratio = 0.61 (statistically not significant)
- **Counter Change Talk** to **Change Talk**: Odds Ratio = 1.92 (statistically significant)
- **Counter Change Talk** to **Counter Change Talk**: Odds Ratio = 0.56 (statistically significant)
- **Counter Change Talk** to **Neutral / Follow / Ask**: Odds Ratio = 1.69 (statistically significant)
- **Neutral / Follow / Ask** to **MI-Consistent**: Odds Ratio = 0.72 (statistically significant)
- **Neutral / Follow / Ask** to **Change Talk**: Odds Ratio = 0.61 (statistically not significant)
- **Neutral / Follow / Ask** to **Counter Change Talk**: Odds Ratio = 1.92 (statistically significant)
- **Neutral / Follow / Ask** to **Neutral / Follow / Ask**: Odds Ratio = 0.56 (statistically significant)

**Legend**:
- Orange solid line: Odds Ratio > 1, statistically significant
- Orange dashed line: Odds Ratio > 1, statistically not significant
- Orange dotted line: Odds Ratio < 1, statistically significant
- Orange dashed-dotted line: Odds Ratio < 1, statistically not significant
Counselor to Patient transition likelihood (ORs)

**MI-Consistent**
- 1.46
- 1.60

**Change Talk**
- 0.50

**MI-Inconsistent**
- 0.56
- 1.69

**Other counselor behaviors**
- 0.94
- 0.72
- 0.61
- 1.92

**Neutral / Follow / Ask**
- 1.69

**Other counselor behaviors**
- 0.56
- 1.69

**Neutral / Follow / Ask**
- 0.94
- 0.72
- 0.61
- 1.92

- Odds Ratio > 1, statistically significant
- Odds Ratio < 1, statistically significant
- Odds Ratio > 1, statistically not significant
- Odds Ratio < 1, statistically not significant
Counselor to Patient transition likelihood (ORs)

- **MI-Consistent to MI-Inconsistent**: 0.56
- **MI-Inconsistent to MI-Consistent**: 1.69
- **MI-Inconsistent to Other counselor behaviors**: 0.94
- **MI-Inconsistent to Neutral / Follow / Ask**: 1.92
- **MI-Inconsistent to Other counselor behaviors**: 0.72
- **MI-Inconsistent to Neutral / Follow / Ask**: 0.61
- **MI-Inconsistent to MI-Consistent**: 0.50
- **MI-Inconsistent to Change Talk**: 1.60
- **MI-Inconsistent to Other counselor behaviors**: 1.69
- **MI-Inconsistent to Neutral / Follow / Ask**: 0.72

**Legend**:
- Orange solid line: Odds Ratio > 1, statistically significant
- Orange dashed line: Odds Ratio > 1, statistically not significant
- Dark orange solid line: Odds Ratio < 1, statistically significant
- Dark orange dashed line: Odds Ratio < 1, statistically not significant
Counselor to Patient transition likelihood (ORs)

<table>
<thead>
<tr>
<th>MI-Consistent</th>
<th>MI-Inconsistent</th>
<th>Other counselor behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.46</td>
<td>0.56</td>
<td>0.72</td>
</tr>
<tr>
<td>1.60</td>
<td>1.69</td>
<td>1.92</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change Talk</th>
<th>Counter Change Talk</th>
<th>Neutral / Follow / Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.50</td>
<td>0.94</td>
<td>0.61</td>
</tr>
<tr>
<td>1.60</td>
<td></td>
<td>1.92</td>
</tr>
</tbody>
</table>

- Odds Ratio > 1, statistically significant
- Odds Ratio < 1, statistically significant
- Odds Ratio > 1, statistically not significant
- Odds Ratio < 1, statistically not significant
Counselor to Patient transition likelihood (ORs)

- **MI-Consistent**
  - Counselor to Counselor: 1.46
  - Counselor to Patient: 1.60
  - Patient to Counselor: 0.50
  - Patient to Patient: 0.56

- **Other counselor behaviors**
  - Counselor to Counselor: 1.92
  - Counselor to Patient: 0.72
  - Patient to Counselor: 0.61
  - Patient to Patient: 1.69

- **Neutral / Follow / Ask**
  - Counselor to Counselor: 0.94
  - Counselor to Patient: 1.00
  - Patient to Counselor: 0.72
  - Patient to Patient: 0.61

- **Change Talk**
  - Counselor to Counselor: 1.60
  - Counselor to Patient: 0.50
  - Patient to Counselor: 0.94
  - Patient to Patient: 0.72

- **Counter Change Talk**
  - Counselor to Counselor: 1.92
  - Counselor to Patient: 0.72
  - Patient to Counselor: 0.61
  - Patient to Patient: 1.69

**Legend:**
- Orange: Odds Ratio > 1, statistically significant
- Orange dashed: Odds Ratio > 1, statistically not significant
- Red: Odds Ratio < 1, statistically significant
- Red dashed: Odds Ratio < 1, statistically not significant
Patient to Patient transition likelihood (ORs)

- Odds Ratio > 1, statistically significant
- Odds Ratio > 1, statistically not significant
- Odds Ratio < 1, statistically significant
- Odds Ratio < 1, statistically not significant

Odds Ratio

<table>
<thead>
<tr>
<th></th>
<th>Change Talk</th>
<th>Neutral / Follow / Ask</th>
<th>Counter Change Talk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change Talk</td>
<td>3.19</td>
<td>0.60</td>
<td>0.52</td>
</tr>
<tr>
<td>Neutral /</td>
<td></td>
<td>0.54</td>
<td>0.53</td>
</tr>
<tr>
<td>Follow / Ask</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counter Change</td>
<td>3.22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 0.48
- 3.63

- Neutral / Follow / Ask
- Counter Change Talk
- Change Talk
Patient to Patient transition likelihood (ORs)

- Odds Ratio > 1, statistically significant
- Odds Ratio < 1, statistically significant

Graph showing transitions between 'Change Talk', 'Neutral/Follow/Ask', and 'Counter Change Talk' with corresponding Odds Ratios.
Patient to Patient transition likelihood (ORs)

- Change Talk
  - 3.19
  - 0.60
  - 0.48
  - 0.52
  - 0.53

- Neutral / Follow / Ask
  - 0.54
  - 0.54
  - 0.48
  - 3.63

- Counter Change Talk
  - 3.22

Odds Ratio > 1, statistically significant
- Odds Ratio > 1, statistically not significant
- Odds Ratio < 1, statistically significant
- Odds Ratio < 1, statistically not significant
Patient to Patient transition likelihood (ORs)

- **Change Talk**
  - Odds Ratio: 3.19
  - Follow/Ask: 0.48
  - Neutral: 0.60

- **Counter Change Talk**
  - Odds Ratio: 3.22

- **Neutral/Follow/Ask**
  - Odds Ratio: 3.63
  - Follow/Ask: 0.48

Legend:
- Orange: Odds Ratio > 1, statistically significant
- Orange dashed: Odds Ratio > 1, statistically not significant
- Dark orange: Odds Ratio < 1, statistically significant
- Dark orange dashed: Odds Ratio < 1, statistically not significant
Counselor to Patient transition likelihood (ORs)

- **MIMI—Consistent**
- **Counter**
- **Change Talk**
- **Other counselor behaviors**
- **Neutral / Follow / Ask**

**Odds Ratios (ORs):**
- MI-Consistent to MI-Inconsistent: 1.22 (statistically significant)
- MI-Consistent to Change Talk: 0.71 (statistically not significant)
- MI-Consistent to Counter: 0.84 (statistically not significant)
- MI-Consistent to Other counselor behaviors: 1.24 (statistically significant)
- MI-Consistent to Neutral / Follow / Ask: 1.13 (statistically not significant)
- MI-Inconsistent to MI-Consistent: 0.61 (statistically significant)
- MI-Inconsistent to Change Talk: 1.52 (statistically significant)
- MI-Inconsistent to Counter: 1.24 (statistically significant)
- MI-Inconsistent to Other counselor behaviors: 0.63 (statistically not significant)
- MI-Inconsistent to Neutral / Follow / Ask: 1.65 (statistically significant)

**Legend:**
- Orange solid line: Odds Ratio > 1, statistically significant
- Orange dashed line: Odds Ratio > 1, statistically not significant
- Orange dash-dotted line: Odds Ratio < 1, statistically significant
- Orange dotted line: Odds Ratio < 1, statistically not significant
Counselor to Patient transition likelihood (ORs)

- **MI-Consistent**
  - **Change Talk**
    - Odds Ratio: 1.22
    - Odds Ratio: 0.71
    - Odds Ratio: 1.52
    - Odds Ratio: 0.84

- **MI-Inconsistent**
  - **Change Talk**
    - Odds Ratio: 1.24
  - **Counter Change Talk**
    - Odds Ratio: 1.24

- **Other counselor behaviors**
  - **Neutral / Follow / Ask**
    - Odds Ratio: 1.13
    - Odds Ratio: 1.65

- **Counselor**
  - Odds Ratio: 0.84
  - Odds Ratio: 0.71

Legend:
- **Odds Ratio > 1, statistically significant**
- **Odds Ratio < 1, statistically significant**
- **Odds Ratio > 1, statistically not significant**
- **Odds Ratio < 1, statistically not significant**
Counselor to Patient transition likelihood (ORs)

- Odds Ratio > 1, statistically significant
- Odds Ratio < 1, statistically significant

- MI-Consistent
- MI-Inconsistent
- Other counselor behaviors
- Neutral / Follow / Ask
- Change Talk
- Counter Change Talk

- Odds Ratio: 1.22, 0.71, 0.84, 1.52, 0.63, 1.13, 1.65, 1.24

Legend:
- Orange: Odds Ratio > 1, statistically significant
- Dashed orange: Odds Ratio > 1, statistically not significant
- Orange: Odds Ratio < 1, statistically significant
- Dashed orange: Odds Ratio < 1, statistically not significant
Counselor to Patient transition likelihood (ORs)

- Odds Ratio > 1, statistically significant
- Odds Ratio < 1, statistically significant

**MI-Consistent**
- 1.22
- 0.71
- 0.84
- 1.24
- 1.52
- 0.63

**MI-Inconsistent**
- 1.13
- 1.65

**Other counselor behaviors**
- 0.61

**Neutral / Follow / Ask**
- 1.13

**Change Talk**
- Follow
- Ask

**Counter Change Talk**
- Other counselor behaviors

**MIMI**
- Consistent
- Inconsistent
Counselor to Patient transition likelihood (ORs)

- **MI-Consistent**
  - 1.22 (Odds Ratio > 1, statistically significant)
  - 0.71 (Odds Ratio < 1, statistically not significant)

- **Change Talk**
  - 0.84 (Odds Ratio < 1, statistically significant)
  - 1.52 (Odds Ratio > 1, statistically significant)

- **MI-Inconsistent**
  - 1.24 (Odds Ratio > 1, statistically not significant)

- **Other counselor behaviors**
  - 1.13 (Odds Ratio < 1, statistically significant)
  - 1.65 (Odds Ratio > 1, statistically significant)

- **Neutral / Follow / Ask**
  - 0.61 (Odds Ratio < 1, statistically significant)

- **Other counselor behaviors**
  - 0.63 (Odds Ratio < 1, statistically significant)

Legend:
- **Odds Ratio > 1, statistically significant**
- **Odds Ratio < 1, statistically significant**
- **Odds Ratio > 1, statistically not significant**
- **Odds Ratio < 1, statistically not significant**
Counselor to Patient transition likelihood (ORs)

- **MI-Consistent**
  - Odds Ratio: 1.22
  - Odds Ratio: 0.84

- **Change Talk**
  - Odds Ratio: 0.71
  - Odds Ratio: 1.24

- **Other counselor behaviors**
  - Odds Ratio: 1.65
  - Odds Ratio: 1.13

- **Neutral / Follow / Ask**
  - Odds Ratio: 0.61

Legend:
- **Odds Ratio > 1, statistically significant**
- **Odds Ratio < 1, statistically significant**
- **Odds Ratio > 1, statistically not significant**
- **Odds Ratio < 1, statistically not significant**
Conclusion – 2 sequential patterns

- MI-consistent behaviors
- Change exploration (CT/CCT)
- MI-inconsistent behaviors + Other
- Neutral (alcohol topic avoidance?)

→ Self-reinforcement
→ Importance of MI-consistent behaviors to enhance CT (which is a predictor of actual change)
Symposium overview

• Main results, *JB Daeppen*

• Communication During Brief Intervention, Intention to Change, and Outcome, *JB Daeppen*

• Do counselors’ and patients’ characteristics communication predict change? *J Gaume*

• Counselor behaviors and patient language during brief motivational interventions: a sequential analysis of speech, *J Gaume*

• **Counselor skill influences outcomes of brief motivational interventions, *J Gaume***

• Change talk during brief motivational intervention: towards or away from drinking, *N Bertholet*

• So, what does all this tell us? *JB Daeppen*
Counselor skill influences outcomes of brief motivational interventions

Jacques Gaume, (M.A.)*, Gerhard Gmel, (Ph.D.), Mohamed Faouzi, (Ph.D.), Jean-Bernard Daeppen, (M.D.)

- to test the hypothesis that MI skills during SBI differed across counselors despite having same background and being trained identically
- to test the hypothesis that these skills differences influenced alcohol use outcomes of patients after SBI
- to analyze whether counselors were differentially effective on different levels of patient ability to change
Research on counselor influence

- Performance and effectiveness often differ between therapists
- Independent of patient background
- Not related to therapist background and formal education
- Not related to attributes of therapists (e.g. personality characteristics)
- Associated with differences in content and process of counseling, as well as possession of strong interpersonal skills

(McLellan et al., 1988; Najavits & Weiss, 1994; Luborsky et al., 1997, Project MATCH Research Group, 1998)
Descriptive statistics

- No differences as regard patient socio-demographic data

<table>
<thead>
<tr>
<th>Counselor</th>
<th>1 (n=33)</th>
<th>2 (n=26)</th>
<th>3 (n=9)</th>
<th>4 (n=21)</th>
<th>5 (n=6)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekly alcohol drinking amount</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At baseline</td>
<td>13.3</td>
<td>12.7</td>
<td>9.6</td>
<td>13.9</td>
<td>18.1</td>
<td>0.60</td>
</tr>
<tr>
<td>At 12-month follow-up</td>
<td>10.8</td>
<td>11.8</td>
<td>8.2</td>
<td>7.0</td>
<td>31.5</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Baseline to 12-month difference</td>
<td>2.4</td>
<td>0.9</td>
<td>1.4</td>
<td>6.9</td>
<td>-13.4</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td><strong>MISC scores</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceptance</td>
<td>6.0</td>
<td>5.6</td>
<td>5.6</td>
<td>6.5</td>
<td>4.8</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Empathy</td>
<td>5.9</td>
<td>5.1</td>
<td>4.7</td>
<td>6.0</td>
<td>4.8</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>MI Spirit</td>
<td>5.7</td>
<td>5.2</td>
<td>5.1</td>
<td>6.0</td>
<td>4.3</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Frequency MI-consistent</td>
<td>38.2</td>
<td>31.5</td>
<td>22.6</td>
<td>28.2</td>
<td>31.1</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Frequency MI-inconsistent</td>
<td>0.9</td>
<td>1.7</td>
<td>1.3</td>
<td>0.3</td>
<td>2.9</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Percent MI-consistent</td>
<td>97.9</td>
<td>95.0</td>
<td>94.7</td>
<td>99.0</td>
<td>91.4</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Percent Open question</td>
<td>62.1</td>
<td>41.4</td>
<td>58.0</td>
<td>49.6</td>
<td>54.9</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Percent Complex reflection</td>
<td>46.3</td>
<td>46.6</td>
<td>40.2</td>
<td>53.4</td>
<td>24.8</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Reflection/Question ratio</td>
<td>1.1</td>
<td>0.8</td>
<td>0.9</td>
<td>1.6</td>
<td>0.7</td>
<td>&lt; 0.01</td>
</tr>
</tbody>
</table>

Pearson's Chi-squared test for categorical variables and ANOVA for continuous variables.
Link between patients’ perceived ability to change during SBI and alcohol outcome according to clustering of patients within the 5 counselors.
Multilevel models

- estimate the effect of counselor skills on the link between patient ability to change during SBI and alcohol outcome according to clustering within counselors

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acceptance</strong></td>
<td>Significant, in the expected direction</td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td>Did not reach significance (p&lt;0.1), but in the expected direction</td>
</tr>
<tr>
<td><strong>MI Spirit</strong></td>
<td>Significant, in the expected direction</td>
</tr>
<tr>
<td><strong>MI-consistent behaviors</strong></td>
<td>Not significant</td>
</tr>
<tr>
<td><strong>MI-inconsistent behaviors</strong></td>
<td>Significant, in the expected direction</td>
</tr>
<tr>
<td><strong>% MI-Consistent</strong></td>
<td>Significant, in the expected direction</td>
</tr>
<tr>
<td><strong>% Open question</strong></td>
<td>Not significant</td>
</tr>
<tr>
<td><strong>% Complex reflection</strong></td>
<td>Significant, in the expected direction</td>
</tr>
<tr>
<td><strong>Reflection/Question ratio</strong></td>
<td>Significant, in the expected direction</td>
</tr>
</tbody>
</table>
Conclusion

- Same counselors background and training
- Similar patients alcohol use and socio-demographic data at baseline
- Outcomes differed widely across counselors
- Use of MI skills during SBI differed widely
- Differences in the expected direction
  - MI-consistent skills being related to better alcohol outcomes
  - even more so, use of MI-inconsistent skills related to poorer outcomes
Symposium overview

• Main results, JB Daeppen
• Communication During Brief Intervention, Intention to Change, and Outcome, JB Daeppen
• Do counselors’ and patients’ characteristics communication predict change? J Gaume
• Counselor behaviors and patient language during brief motivational interventions: a sequential analysis of speech, J Gaume
• Counselor skill influences outcomes of brief motivational interventions, J Gaume
• Change talk during brief motivational intervention: towards or away from drinking, N Bertholet
• So, what does all this tell us? JB Daeppen
CHANGE TALK DURING BRIEF
MOTIVATIONAL INTERVENTION:
TOWARDS OR AWAY FROM DRINKING

Nicolas Bertholet
Mohamed Faouzi
Gerhard Gmel
Jacques Gaume
Jean-Bernard Daeppen
Introduction

- Change talk is likely to evolve over the course of a session
- How change talk relates to subsequent behavior change is not well known
- It is of interest to
  - Describe the progression of change talk throughout a single BMI
  - Investigate whether change talk trajectories within the intervention are associated with drinking outcomes
In the present study we used change talk data obtained from subject speech.

Change talk can be divided into:

- In favor of change (CT)
- Away from change / in favor of status quo (or Counter Change Talk: CCT)

Each CT and CCT subject utterance is graded according to its strength from 1 to 5.

The direction of change talk is indicated with a positive or a negative score.
Methods: Coding of audio-recordings

- The coding process was done by a trained psychologist blinded to assessment and follow-up data.
- A sequence of observations consists of a series of values from $-5$ to $-1$ and $+1$ to $+5$.
- Here is how a sequence of observations looks like:

$$<\ldots, +1, +1, +2, +1, +2, +2, -2, -2, -1, +3, -1, +4, -2, \ldots>$$
Methods - Hidden Markov Model

- Hidden Markov Models (HMM) provide a framework to learn about the attitudes of subjects regarding behavior change from observed speech utterances.
- The HMM allow to identify states that are not directly observable: it will allow to identify underlying attitudes regarding behavior change based on CT and CCT utterances.
- The HMM will summarize a sequence of observations in a variable number of states or attitudes regarding changing drinking.
Methods - Hidden Markov Model

- Using a sequence of observations (CT and CCT utterances), the Hidden Markov Model (HMM) allows to identify underlying attitudes regarding behavior change.
- Both frequency and strength of the multiple CT and CCT utterances are taken into account.
- Among 97 at-risk drinkers, HMM were used to identify 3 different patient talk states reflecting their attitudes regarding changing their drinking behavior within a brief motivational intervention.
Methods

The Hidden Markov Model (HMM) was used to identify 3 different “hidden” states:

- Attitude:
  - Towards change (TC)
  - Away from change (AC)
  - Non-determined (ND)
Methods

- Regression models were used to assess the relationship between patient attitudes (HMM states) regarding drinking at the beginning, at the end and throughout the intervention and drinking 12 months later.
Methods

- We tested the following variables:
  - **First state** (attitude regarding changing drinking at the beginning of the intervention)
  - **Percentage of “towards change” “away from change” and “non-determined”** throughout the intervention (distribution of the speech content between the three attitudes)
  - **Last state** (attitude regarding changing drinking at the end of the intervention)
  - **Interaction between last state and length of the last state**
Results

- At the beginning of the intervention (first state)
  - 74% were non-determined regarding changing drinking
  - 22% had an attitude away from change
  - 4% had an attitude towards change

- At each point during the intervention, staying in the same state was far more likely than transitioning from one state to another.
Hidden Markov Model and transition matrix

- **Non determined**: 0.84, 0.18, 0.13, 0.04, 0.03
- **Away from change**: 0.79
- **Towards change**: 0.93, 0.03, 0.03

- **Change percentages**:
  - 74%
  - 4%
  - 22%
Hidden Markov Model and transition matrix

- **Non determined**
  - Transition probabilities:
    - 0.84 (loop)
    - 0.13 to **Away from change**
    - 0.18 to **Toward change**

- **Toward change**
  - Transition probabilities:
    - 0.04 from **Non determined**
    - 0.03 (loop)
    - 0.03 to **Away from change**

- **Away from change**
  - Transition probabilities:
    - 0.03 from **Non determined**
    - 0.03 from **Toward change**
    - 0.79 (loop)
Examples of decoded sequences and corresponding states identified with the Hidden Markov Model

Change talk sequence
Examples of decoded sequences and corresponding states identified with the Hidden Markov Model

HMM states

Observed sequence

Observed Change
Talk scores

Toward Change
Away from Change
Non-Determined

subject 39

subject 63

HMM resulting state
Results

- In single regression models, only the subject’s attitude regarding changing drinking at the end of the BMI (last state) was significantly associated with changes in weekly drinking at 12 months (p=0.02)
- The first state was not associated with changes in weekly drinking at 12 months
- There was no interaction between type and length of last state (p=0.2)
Results

- Subjects with a last state “towards change” decreased their weekly drinking (SE) by 9.38 (2.94) more units than did subjects with a last state “away from change”

- Those with a last state “non-determined” decreased their weekly drinking by 6.66 (2.76) more units than did subjects with a last state “away from change”
Results

- In the adjusted regression model, only the first state was significantly associated with subsequent drinking.

<table>
<thead>
<tr>
<th></th>
<th>Coef.</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>First state (reference group=AC state)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ND state</td>
<td>-0.2</td>
<td>2.4</td>
<td>0.9</td>
</tr>
<tr>
<td>TC state</td>
<td>-5.2</td>
<td>7.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Last state (reference group=AC state)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ND state</td>
<td>8.9</td>
<td>3.0</td>
<td>0.005</td>
</tr>
<tr>
<td>TC state</td>
<td>16.6</td>
<td>4.5</td>
<td>0.001</td>
</tr>
<tr>
<td>Percentage in the decoded state sequence of AC state</td>
<td>9.1</td>
<td>5.7</td>
<td>0.1</td>
</tr>
<tr>
<td>Percentage in the decoded state sequence of TC state</td>
<td>-7.3</td>
<td>6.3</td>
<td>0.2</td>
</tr>
</tbody>
</table>

- Adjusted for age,
- Interaction between length of last state and last state $p=0.8$ (removed from the model)
Limitations

- Secondary analysis: data were collected without the objectives of this study in mind
- Only one person did the coding
- Due to several technical problems and the unwillingness of some patients to allow taping, all BI were not recorded
- The observed associations may be independent of the BMI
Conclusion

- This study contributes to current evidence that supports the notion of change talk playing an important role in the change process and adds information about the dynamic processes at play during the intervention.
Conclusion

- The association between the last talk state reflecting the subject’s attitude regarding changing drinking and actual changes in drinking should prompt clinicians to encourage more talk toward change.
So, what does all this tell us?
Brief alcohol intervention and alcohol assessment do not influence alcohol use in injured patients treated in the emergency department: a randomized controlled clinical trial

Daeppen JB et al, Addiction, 102, 1224–1233, 2007

- No BMI effect on alcohol outcome
- The reduction of alcohol use observed in control groups was not explained by an assessment effect
Communication During Brief Intervention, Intention to Change, and Outcome

Daeppen JB et al, Substance Abuse, 28, 43-51, 2007

• Global null findings
• But intention to change expressed by the patient at the end of BMI was related to alcohol use outcome
• Therefore “some” patients' characteristics, influenced or not by BMI, are related to drinking outcome
• May be independent of counselor attitude
• May be independent of BMI effect
Brief Alcohol Interventions: Do counselors’ and patients’ characteristics communication predict change?


• Global null findings
• But, content of BMI related to alcohol outcome, particularly ability to change expressed by the patient
• May be independent of counselor attitude
• May be independent of BMI influence
Sequential patterns

- MI-consistent behaviors
  → Change exploration (CT/CCT)

- MI-inconsistent behaviors + Other
  → Neutral (alcohol topic avoidance?)

→ Self-reinforcement
→ Importance of MI-consistent behaviors to enhance CT (which is a predictor of actual change)
MI-consistent behaviors were the only counselor behaviors that significantly lead to patient change talk.

Other counselor behaviors significantly led to neutral speech (avoidance of alcohol topic?)

MI consistent counselor behavior likely to be followed by patient change talk and self-reinforcing sequential patterns.

MI useful to elicit change exploration and change talk.

Counselor behaviors and patient language during brief motivational interventions: a sequential analysis of speech

These patient-provider interaction analyses suggest:

- Influence of the counselor on patient attitude
- Influence of patient talk on outcome
- Is there an influence of counselor on outcome, via patient?

Hypothesis of the potential influence of the counselor on outcome suggested a next step of analyses comparing outcome across the 5 counselors who participated to the study.
Link between patients’ perceived ability to change during BMI and alcohol outcome according to clustering of patients within the 5 counselors

Differences related to MI adherence in multi-level analyses
Counselor skill influences outcomes of brief motivational interventions


- Counsellors with a better overall MI performance achieve better outcomes
- but also showed efficacy across all levels of patients’ ability to change
- Counsellors with a poorer overall MI performance were efficacious mainly with patients expressing high levels of ability to change (reinforcement only?)
• Influence of patient on outcome
• Influence of counselor on outcome
• Counselor influence related to MI adherence
• Influence of counselor-patient interaction
• Good counselor effective whatever the patient's ability (readiness) to change
• Impact on selection of counselors?
Change talk during brief motivational intervention: towards or away from drinking

Bertholet N et al, submitted

- The finding that the last state (toward change, away change or neutral) and not the initial state was associated with changes in weekly drinking 12 months after BMI.
- The finding is consistent with the hypothesis that something might occur within the patient during the course of the intervention.
- Furthermore, we identified a significant association between the last state and subsequent drinking that was independent of the first state.
Conclusions

- Independent of homogenous and careful training, important differences were observed across counselors’ performances.
- MI-consistent counselors induced change talk in patients; and change talk was positively associated with drinking outcome.
- BMI should focus on the general MI attitude of counselors who are capable of eliciting beneficial change talk from patients, and not place as much importance on some of the other, less influential components of the intervention such as feedback or menu.
Conclusions

- This probably means that counselor training, initially considered to be relatively short and easy to achieve within a FRAMES-like brief intervention, may take more time and practice in order to equip providers with the requisite skills to help patients elicit more change talk.

- These findings also put the overall null findings of our study into a more meaningful context, since most counselors were effective only with patients having high levels of ability to change, and patient ability to change was generally low among the individuals studied.
Thank you for your attention!

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