

## *Motivational Interviewing for Substance Abuse*

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### Joint Campbell and Cochrane review

|          | Accepted Title | Accepted protocol                     | Accepted review |
|----------|----------------|---------------------------------------|-----------------|
| Campbell |                |                                       |                 |
| Cochrane |                | Submitted<br>May 6 <sup>th</sup> 2009 |                 |

## MI - Background

- Motivational interviewing (MI), Miller and Rollnick.
- Client-centred, directive method for enhancing intrinsic motivation to change.
- Explicit standards for practitioners regarding education and competence.
- Quality control to ensure that the method is in fact used as intended.

## MI - the Method

- **Express empathy:** seeing the world through the client's eyes.
- **Support self-efficacy:** Hold clients responsible for carrying out actions to change.
- **Roll with resistance:** the counsellor does not fight client resistance, but "rolls with it." Statements demonstrating resistance are not challenged. Use the client's "momentum" to further explore the client's views.
- **Develop discrepancy:** Motivation for change occurs when people perceive a discrepancy between where they are and where they want to be. Clients are helped to examine the discrepancies between their current behavior and future goals.

## Discrepancy between

Where they are



And where they want to be



## PICO

|                     |  |
|---------------------|--|
| <b>Population</b>   | Substance abusers  |
| <b>Intervention</b> | Motivational Interviewing  |
| <b>Comparison</b>   | <ul style="list-style-type: none"><li>▪ Other intervention</li><li>▪ Treatment as usual</li><li>▪ No treatment control</li></ul> |
| <b>Outcome</b>      | Substance abuse  |

## Population

- Persons with problematic use of substance
  - We exclude nicotine
  - We exclude substance misuse (incorrect use of prescribed medication)
  
  - We include college students mandated to treatment after binge drinking episodes

## Intervention

- Motivational Interviewing (MI)
- Motivational Enhancement Therapy (MET) is a manualised form of MI from Project MATCH
- Adaptations of MI (AMI)
- Studies must refer to the seminal publications by Miller and Rollnick
- Studies must have a check of audio- or video recordings of therapy sessions

## Comparisons

1. MI or MET as stand-alone intervention
  - MI vs no intervention control
  - MI vs wait-list control
  - MI vs CBT
2. MI or MET as prelude to other intervention
  - MI +CBT
3. MI as part of multicomponent intervention
  - MI/CBT
  - MI/naltrexone

## Outcomes

- Amount of substance use
  - Drinks per drinking day
- Frequency of use
  - Days abstinent /days of use
- Substance problems
  - Timeline Followback
  - AUDIT (Alcohol Use Disorders Identification Test)
  - RAPI (Rutgers Alcohol Problem Index)
  - ASI (Addiction Severity Index)
  - OTI (Opiate Treatment Index)

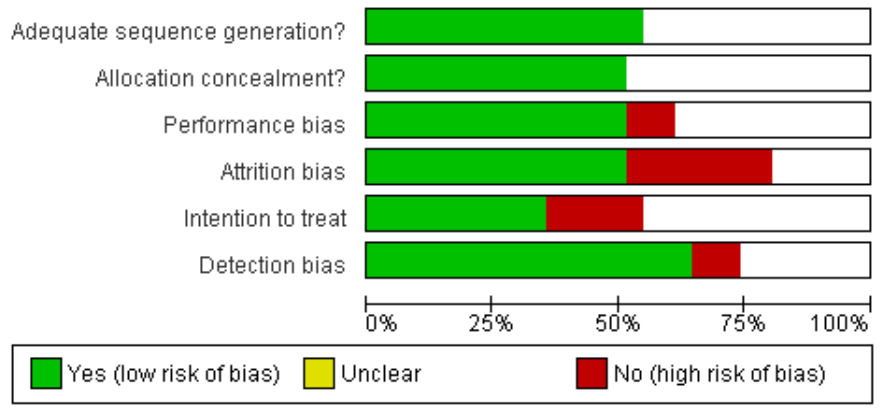
## Results: # Publications and studies

- Initial database search: 1222 titles and abstracts.
- Meeting first criteria of inclusion: 267
- Meeting final criteria of inclusion: 31 studies++
  - We will contact authors for missing information
  - A few more studies may be included

**Risk of  
bias  
summary  
for 31  
studies**

|                | Allocation concealment | Blinding | Performance bias | Attrition bias | Selection bias | Reporting bias |
|----------------|------------------------|----------|------------------|----------------|----------------|----------------|
| Anton 2005     |                        |          |                  |                |                |                |
| Babor 2004     | ●                      | ●        | ●                | ●              | ●              | ●              |
| Ball 2007a     | ●                      | ●        | ●                | ●              | ●              | ●              |
| Ball 2007b     | ●                      | ●        | ●                | ●              | ●              | ●              |
| Barnett 2007   | ●                      | ●        | ●                | ●              | ●              | ●              |
| Bien 1993      | ●                      | ●        | ●                | ●              | ●              | ●              |
| Borsari 2005   |                        |          |                  |                |                |                |
| Carey 2006     |                        |          |                  |                |                |                |
| Carroll 2006a  | ●                      | ●        | ●                | ●              | ●              | ●              |
| Carroll 2006b  |                        |          |                  |                |                |                |
| Connors 2002   | ●                      | ●        | ●                | ●              | ●              | ●              |
| Copeland 2001  |                        |          |                  |                |                |                |
| de Wit 2002    | ●                      | ●        | ●                | ●              | ●              | ●              |
| Emmen 2005     | ●                      | ●        | ●                | ●              | ●              | ●              |
| Feldstein 2007 | ●                      | ●        | ●                | ●              | ●              | ●              |
| Kahler 2004    |                        |          |                  |                |                |                |
| Kavanagh 2004  | ●                      | ●        | ●                | ●              | ●              | ●              |
| Kelly 2000     |                        |          |                  |                |                |                |
| Maisto 2001    | ●                      | ●        | ●                | ●              | ●              | ●              |
| Marsden 2006   | ●                      | ●        | ●                | ●              | ●              | ●              |
| Miller 2003    | ●                      | ●        | ●                | ●              | ●              | ●              |
| Peterson 2006  | ●                      | ●        | ●                | ●              | ●              | ●              |
| Saltz 2007     | ●                      | ●        | ●                | ●              | ●              | ●              |
| Selman 2001    | ●                      | ●        | ●                | ●              | ●              | ●              |
| Stein 2002     | ●                      | ●        | ●                | ●              | ●              | ●              |
| Stephens 2007  | ●                      | ●        | ●                | ●              | ●              | ●              |
| Stotts 2001    | ●                      | ●        | ●                | ●              | ●              | ●              |
| Stotts 2006    | ●                      | ●        | ●                | ●              | ●              | ●              |
| UKATT 2005     | ●                      | ●        | ●                | ●              | ●              | ●              |
| Walker 2006    |                        |          |                  |                |                |                |
| Winhusen 2007  | ●                      | ●        | ●                | ●              | ●              | ●              |

## Risk of bias graph for 31 studies

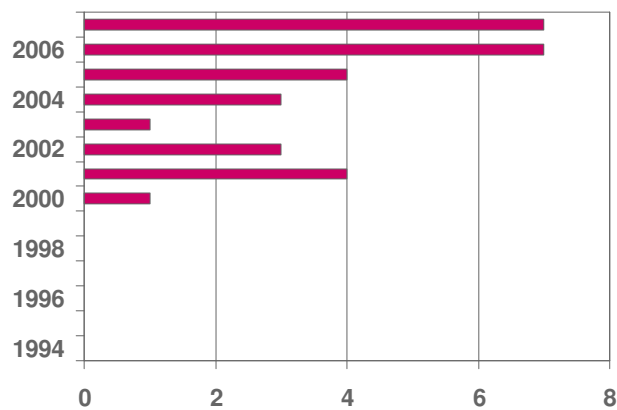


May 22, 2009

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## Publication year of the included studies

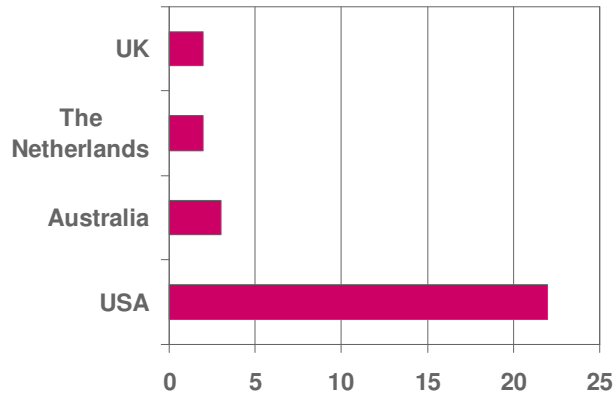


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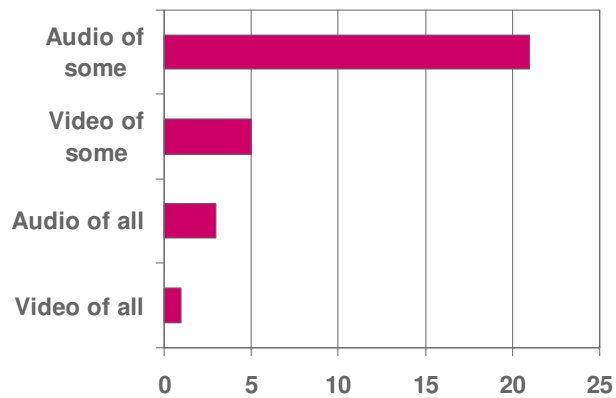
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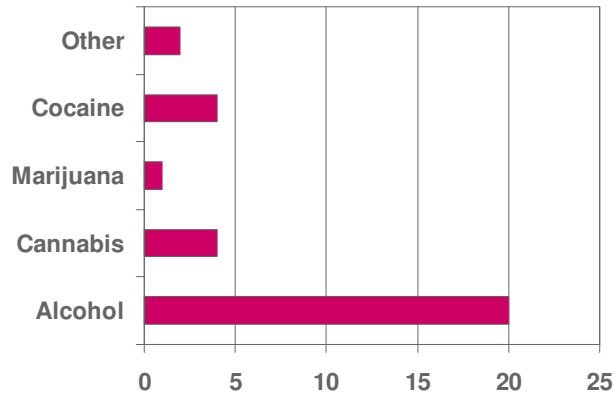
## Country



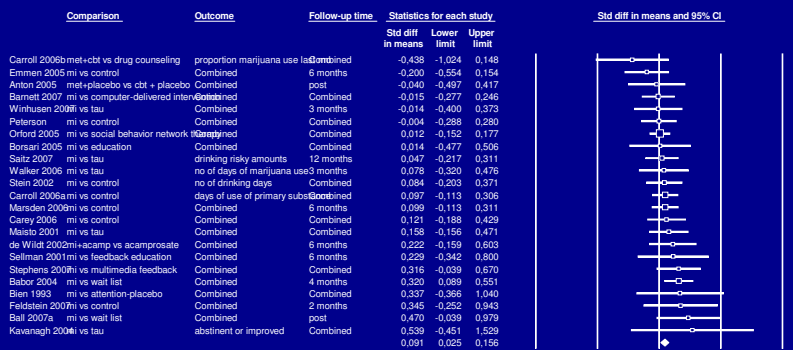
## Check of treatment integrity



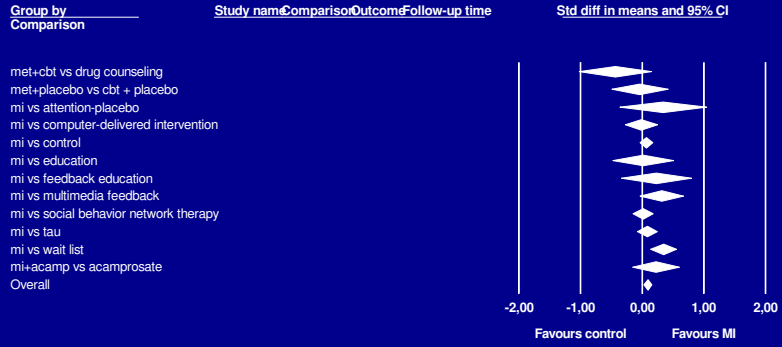
## Type of substance



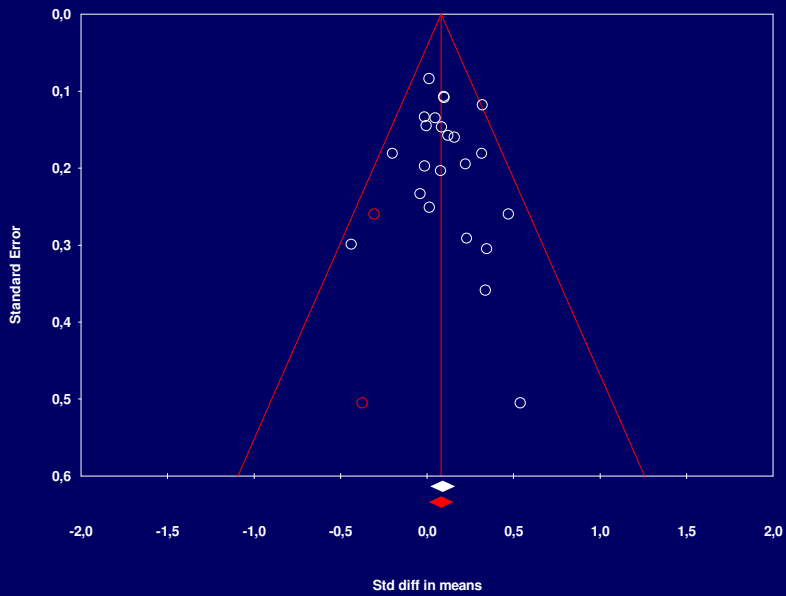
## Combined substance use outcomes for studies with extracted data



## Different comparisons of MI versus other or no intervention



Funnel Plot of Standard Error by Std diff in means



## Preliminary Conclusions

- There are a number of randomised trials of MI for substance abuse
- It is not clear exactly what is given in the MI condition and what is given in the comparison condition
- Because the studies vary regarding comparators and substances studied there are not many comparisons that can be included in meta-analyses