Effectiveness and cost-effectiveness of adjunctive personalized psychosocial intervention in treatment-resistant maintenance opioid agonist therapy

John Marsden, King’s College London
Acknowledgements

Study funded (educational grant) to King’s College London from Indivior.

Co-authors:

Garry Stillwell
Kirsty James
James Shearer
Sarah Byford
Jennifer Hellier
Michael Kelleher
Joanna Kelly
Caroline Murphy
Luke Mitcheson
• Systematic review of 6 trials 1 of opioid agonist therapy for heroin dependence (n=837) shows flexible-dose methadone more effective than flexible-dose buprenorphine for retention but not for lower heroin use.

• Systematic review of 3 trials 2 of pharmaceutical opioid use disorder (n=360), no difference between methadone and buprenorphine for retention or suppression of non-prescribed opioid use.

Limitations of opioid agonist therapy

• Many patients discontinue treatment. 1
• Some stay in treatment but do not take their prescription as directed and use illicit opioids
• An English study of 13 542 patients enrolled for 12–26 weeks, reported that 63%) used opioids on 10 or more of the past month at clinical review. 2
• An English study 7,718 patients continuously enrolled in opioid agonist therapy for 5.5 years, 1:7 had a stable pattern of nonresponse (opioids used on 15 of the past 28 days before 6-monthly clinical reviews). 3
• Cocaine use disorder 4 and co-occurring anxiety and mood disorders can moderate engagement with, and response to, opioid agonist therapy. 5

Adjunctive psychosocial interventions

• Many manual-driven therapies have been trialled.
• NICE endorses only contingency management), behavioural couple interventions, and 12-step-based groups. 1
• Cochrane review of 13 different interventions concluded that the effectiveness of opioid agonist therapy was not enhanced by the addition of any psychosocial interventions. 3

1 Clinical Guideline 51
2 Cochrane Database Syst Rev 2011; 10: CD004147
Case formulation-driven toolkit

- Case formulation is collaborative, hypothesis of why a disorder is maintained. ¹
- Focus on cognitive, affective, and interpersonal factors.
- Change methods for 12-week intervention selected from the following interventions:
  - Cognitive behavioural therapy
  - Contingency management with 3 targets: abstinence, clinic attendance, recovery activities
  - 12-step facilitation therapy
  - Social behaviour and network therapy
  - Behavioural couples therapy

Participants, Setting, Outcome

- Patients recruited were enrolled in opioid agonist therapy for at least 6 weeks in NHS community treatment service and using heroin or cocaine on 1+ days in past month (UDS verified).
- Randomisation stratified by type of opioid agonist therapy, recent cocaine use and injecting) to ongoing treatment-as-usual (TAU) and TAU plus tailored psychosocial intervention (PSI).
- Primary outcome was treatment response at 18 weeks defined as no reported use of opioids or cocaine during the 28 days before follow-up interview and one or more negative urine drug tests for heroin and cocaine (and no positive tests).
Results (1)

- At 18 weeks, almost all participants enrolled in opioid agonist therapy.
- No group difference in daily dose.
- PSI delivered by 5 psychology assistants and 3 senior psychologists.
- PSI participants attended 5 sessions (range: 0-20).
- 59% of PSI participants attended at least 1/3rd of sessions.

- At follow-up, 22 (16%) of 135 participants in the PSI group were treatment responders, compared with nine (7%) of 135 in the control group (adjusted log odds 1.20).
Results (2)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Positive effect (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioid PDA</td>
<td>0.39 (0.15 to 0.62)</td>
</tr>
<tr>
<td>Crack cocaine PDA</td>
<td>0.27 (0.07 to 0.47)</td>
</tr>
<tr>
<td>Cocaine PDA</td>
<td>0.12 (-0.13 to 0.36)</td>
</tr>
<tr>
<td>MoCA</td>
<td>-0.04 (-0.26 to 0.18)</td>
</tr>
<tr>
<td>PHQ-9</td>
<td>0.17 (-0.05 to 0.40)</td>
</tr>
<tr>
<td>GAD-7</td>
<td>0.17 (-0.04 to 0.38)</td>
</tr>
<tr>
<td>WSAS</td>
<td>0.27 (0.05 to 0.49)</td>
</tr>
</tbody>
</table>
Results (3)

- £1000 per 1% improvement in response threshold line
- 95% confidence ellipse
- Mean difference in costs (−£400) and effects (0.108)
Conclusions

- As long noted in psychotherapy, the provision of an additional element to standard care is likely to achieve only a small average effect.  
- NICE position based on the average treatment effect from a mix of responders and non-responders, which potentially masks the efficacy of psychosocial interventions for responders.
- We showed that a tailored PSI for patients not responding to opioid agonist therapy was effective and cost-effective.