What has it got to do with us? Working with dual diagnosis in mental health

Lois Dugmore Consultant Nurse
Leicestershire Partnership NHS Trust &
Dr Liz Hughes Senior Lecturer University of
York
Aims

• Define dual diagnosis and its clinical correlates
• Consider the UK policy and evidence base
• Discuss the issues and challenges relevant to clinicians including new psychoactive substances
What is Dual Diagnosis?

• Co-occurance of two distinct and diagnosable disorders (as defined by ICD-10 or DSM-IV)

• Commonly used to label a group of service users who present with both mental health and concurrent drug and/or alcohol problems

• Misleading term- used for people who have not necessarily received formal diagnoses; often have complex multiple social, emotional, financial and legal issues too.
It is likely that approximately a third of those receiving treatment for serious mental health problems (i.e. using secondary care) will also have current drug/alcohol problems as well:

- Menezes (1996) 36% last 6 months (inpatient/CMHT)
- Weaver (2001) 44% 1 year (CMHT)
- Phillips (2003) 44% last 6 months (inpatient)
Clinical correlates

- Increased likelihood of self-harm and violence
- Poor physical health (including HIV infection)
- Relapse and rehospitalisation
- Medication non-compliance
- Family problems
- Homelessness
- Legal issues and offending
- Higher overall service costs
Integrated Treatment of New Hampshire

• Integrated Treatment- hybrid of mental health and substance use approaches aiming to treat the whole person as opposed to referring to separate services
• Teams set up containing both mental health and substance misuse practitioners
• Components:
  – Comprehensive
  – Assertive outreach
  – Stage-wise
  – Longitudinal
  – Medication management
Review of Integrated treatment

- Drake et al (1998) compared two forms of IT- case management vs assertive outreach. Patients (N=203) randomly allocated and followed for 3 years
- 85% original cohort still engaged after 3 years
- No differences between groups on psychiatric symptoms, drug and alcohol measures
- Problems with treatment diffusion, lack of fidelity
UK response

• Mainstreaming (DH, 2002)
• Integrated treatment delivered by current workforce
• Lack capabilities
• Require CPD training (and pre-registration!)
• Also importance of local leads who can provide leadership, training, support, protocols, advocate for this group
• 12 years on, not sure this has worked...
Policy Context

- Dual Diagnosis Good Practice Guide 2002
- Recovery Model
- Ten Essential Shared Capabilities
- Closing the Gap - Dual Diagnosis capability framework
- Dual Diagnosis Themed Review Report 2006/07 SHA Regional
- Dual diagnosis in mental health inpatient and day hospital settings (2006)
- Bradley Report 2009
- No Health without mental health 2011
Training Trials
COMO Trial SLAM

- RCT of training case managers in integrated treatment- across CMHTs in the trust
- Individuals were allocated to training or no training (would receive training after trial ended)
- Eligibility: staff: working with their caseloads as usual over the next 18 months
- Patients: case note diagnosis of schizophrenia, schizoaffective, bipolar, other long term psychosis plus a score of 3 or more on case manager rating scale (CDUS or CAUS) indicating abuse or dependence on drugs and/or alcohol
- Sample size A sample of 220 patients was adopted (p=0.05, 80% power). Assume 20% of caseload had comorbidity and average caseload was 20, we aimed for 55 case managers; we recruited 79 and 80% at follow-up.
National Consortium of Nurse Consultants in Dual Diagnosis and Substance Use

14 Community Mental health Teams eligible for inclusion

Two teams refused to participate (due to organisational change)
In 12 teams, 79/94 case managers

Case managers (n=79) (including one pair of job-sharers) randomised to intervention or control

Case managers allocated to intervention (n=40) including pair of job-sharers Didn’t receive training n=6

Case managers who received intervention who completed follow-up measures N=36

Case managers allocated to control n=39

Case managers in control group who completed follow-up measures N=27
## Trainee Demographics

<table>
<thead>
<tr>
<th></th>
<th>Experimental (n=40)</th>
<th>Control (n=39)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age years: mean (s.d)</strong></td>
<td>37 (7.3)</td>
<td>37 (6.2)</td>
</tr>
<tr>
<td><strong>Number female</strong> N (%)</td>
<td>20 (53)</td>
<td>19 (51)</td>
</tr>
<tr>
<td><strong>Number White</strong> N (%)</td>
<td>21 (58)</td>
<td>26 (78)</td>
</tr>
<tr>
<td><strong>Number mental health nurse</strong> N (%)</td>
<td>22 (58)</td>
<td>18 (49)</td>
</tr>
<tr>
<td><strong>Number &gt; 5 years in current profession, N (%)</strong></td>
<td>22 (59)</td>
<td>25 (69)</td>
</tr>
<tr>
<td><strong>Number attended study days relevant to dual diagnosis N (%)</strong></td>
<td>24 (63)</td>
<td>25 (68)</td>
</tr>
<tr>
<td><strong>Number never worked clinically in substance use services N (%)</strong></td>
<td>17 (45)</td>
<td>20 (57)</td>
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</table>
Staff Measures

- Primary Outcome
- Alcohol and Alcohol Problems Perceptions Questionnaire (AAPPQ, Cartwright, 1980)

- Secondary measures
- Knowledge about dual diagnosis
- Self-efficacy
- Maslach Burn-out Inventory
- Minnesota Job Satisfaction Scale
- Analysis of covariance using baseline differences as covariates
Training

- 5 day course
- Manual
- Monthly 1 hour supervision
- 81% attended at least 4.5 days of training

- Based on integrated treatment principles
- Skills: assessment, motivational interviewing, cognitive behavioural techniques and relapse prevention

www.dualdiagnosis.co.uk
<table>
<thead>
<tr>
<th>measure</th>
<th>intervention</th>
<th>control</th>
<th>Adjusted difference (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>baseline</td>
<td>follow-up</td>
<td>baseline</td>
<td>follow-up</td>
</tr>
<tr>
<td>AAPPQ</td>
<td>123.39</td>
<td>131.15</td>
<td>113.73</td>
<td>116.56</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>51.55</td>
<td>68.45</td>
<td>49.15</td>
<td>51.12</td>
</tr>
<tr>
<td>knowledge</td>
<td>10.5</td>
<td>12.96</td>
<td>10.63</td>
<td>10.55</td>
</tr>
</tbody>
</table>
• Staff in training group had significantly higher scores of knowledge and self efficacy
• Overall attitudes failed to reach significance, but subscales relating to knowledge and skills were significantly higher.
• Therefore training had some positive effects on recipients even after 18 months
• Patient outcomes generally not affected by whether the keyworker had the training or not (see Johnson et al, 2007)
• Significant attrition, people changed keyworker etc
• Psychiatric symptoms showed some improvement but there was no reduction in substance use....???
CODA trial: Camden and Islington 2001-2003

- Follow-up to COMO project
- A Cluster RCT of “whole team training” vs “training as usual”
- whole team = 5 day COMO style training for all clinical members of a team (MDT), then monthly team supervision by trainers
- training as usual = 2 members of a team “volunteered” to undergo the 12 week module of training, expected to disseminate learning to their team and meet monthly with trainers
• 9 teams paired (team A and B) and randomly allocated to either condition (2 smaller teams were treated as 1 team)
• Baseline data collected prior to randomisation (double blind)
• Follow-up data collected after 18 months (not blinded)
• Patient data extracted from keyworkers and notes
• Keyworker data from questionnaires
Staff Baselines

- 118 staff completed baseline questionnaire across the 9 teams
- Comparable on demographics between randomised groups
- 64% female, 36% nurses, 34% social workers
- 56% never attended any DD study days
- 45% never worked in substance use setting
- similar to COMO cohort
Patient data

- A total of 315 out of 1041 patients were identified by keyworkers as being eligible (30.2%)
- Follow-up data was obtained on 82.8%
- Bed days in psychiatric hospital
- Service use
- Homelessness
- Self-harm
- Case Manager rating of substance use
Main outcomes

- Significant staff attrition
- 62% response rate at follow-up
- No change on attitude, knowledge, and self-efficacy scores between groups
- High scores at baseline anyway.
- High levels of burn-out and low job satisfaction
- No changes in service user outcomes (as taken from case notes)
- This is in contrast to the COMO training project in South London (staff had more positive attitudes, knowledge and confidence) and the North London Inpatient training, which showed an effect at follow-up. The same training package was used by all three studies!
## National Consortium of Nurse Consultants in Dual Diagnosis and Substance Use

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<td>baseline</td>
<td>Follow-up</td>
<td>baseline</td>
<td>Follow-up</td>
</tr>
<tr>
<td>AAPQ</td>
<td>125.06</td>
<td>134.46</td>
<td>125.19</td>
<td>133.08</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>52.04</td>
<td>58.05</td>
<td>49.47</td>
<td>59.54</td>
</tr>
<tr>
<td>Knowledge</td>
<td>10.98</td>
<td>11.57</td>
<td>10.68</td>
<td>10.94</td>
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</table>
Associations of case manager characteristics on Attitude

- Stepwise linear regression
- Baseline measures and:
  - Professional background
  - Training condition
  - Total years in mental health
  - Study days related to subject
  - Number of study days
  - Clinical substance use
  - Burn out and job satisfaction

Only 2 characteristics associated with attitude scores:
- length of time of clinical substance misuse experience
- higher number of study days
Whole Team Training- baseline to follow-up

- Significant results at follow-up on staff measures
- Within group t-tests compared baseline to follow-up in whole team
- Self efficacy increased by 10 pts (p=0.007)
- AAPPQ increased 8 points (p=0.005)
Possible explanations

• Between groups analysis under-powered so results are inconclusive
• Training too basic - only reinforced what they already knew
• Questionnaires lacked sensitivity
• Training dose too short
• Case managers feeling too burnt out to take on complex dual diagnosis issues?
• Evaluation and qualitative feedback support whole team training as preferred methods
The future?

• Change the **whole system** that works with the person, not just individual workers
• More co-location of mental health and substance use workers?
• Competency-based training- ensuring that training content provides specific competencies for the job (dual diagnosis capability framework to be more specifically mapped to KSF and NOS)
• Development of novel and flexible methods of delivery including e-learning, work-based learning that takes into account prior experience and learning of individuals
• Development of post-training support including:
  • Development of the role of specialist/link workers
  • More intense peer support and supervision
  • Frequency of supervision
What does it mean for early intervention?

- Client group more likely to be using substances
- Legal highs
- PMA
- Cannabis
- Alcohol
Side effects of legal highs

- Prolonged rapid heart beat
- Memory loss
  - High blood pressure
  - Liver damage
  - Excessive jaw clenching/head shaking
  - High temperature
  - Severe nausea and sickness
  - Insomnia
  - Depression
  - Anxiety
  - Panic attacks
  - Severe paranoid symptoms
- website www.legalhighslethallows.co.uk
1-Benzofuran-6-ylpropan-2-amine (6-APB) – aka ‘NRG3’

6APB – stimulant: note the use of the terms ‘research chemicals’ & ‘pellets’ (not pills), and the warnings ‘harmful’ and ‘not for human consumption’
### Timeline of legal highs (novel drugs)

<table>
<thead>
<tr>
<th>Decade(s)</th>
<th>Initially unregulated drugs becoming popular</th>
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<tbody>
<tr>
<td>1970s-80s</td>
<td>solvents (eg. butane, toluene); poppers (alkyl nitrites); magic mushrooms (notably psilocybe)</td>
</tr>
<tr>
<td>Nineties</td>
<td>ketamine; GHB (gammahydroxybutyrate)</td>
</tr>
<tr>
<td>1991-2000</td>
<td>khat</td>
</tr>
<tr>
<td>Noughties (2001-2010)</td>
<td>piperazines (notably BZP); cathinones (notably mephedrone); GBL; N₂O (laughing gas); salvia divinorum; kratom</td>
</tr>
<tr>
<td>2011-2012</td>
<td>6APB (eg. Benzo Fury), MDAI (eg. Sparkle), methoxetamine (eg. MXE); synthetic cannabinoids (from JWH-018 to AM-2201)</td>
</tr>
</tbody>
</table>
Treatment

- Cognitive Behaviour Therapy
- Drug/Alcohol treatment
- Family/group therapy
- Motivational interviewing
- Psychotherapy
- Hearing voices
- Assertive approaches
- Cycle of change
- Psycho/social models
- DBT
Medication Issues

- Prescribing Disulfiram (antabuse) - used for profound drinking problems
- Naltrexone - commonly prescribed for opiate users. Blocks the action of opioids and precipitates withdrawal symptoms.
- Lofexidine - used to alleviate symptoms of those undergoing opioid withdrawal
- Methadone prescribing - injectables/inhalables/liquid opioid agonist, prevents withdrawal side effects of opioids.