Review of integrated mental health and substance abuse treatment for patients with dual disorders


Authors' objectives
To review the effectiveness of integrated mental health and substance abuse treatment for patients with dual disorders.

Searching
MEDLINE and the Project Cork database were searched using the keywords 'substance abuse', 'chronic mental illness' and 'dual diagnosis'. Project officers at NIMH, NIAAA, NIDA, and the Substance Abuse and Mental Health Services Administration (SAMHSA) were also consulted.

Study selection
Study designs of evaluations included in the review
There were no restrictions on study design.

Specific interventions included in the review
Integrated treatments that combined mental health and substance abuse treatments consisting of psychosocial interventions, as distinguished from pharmacological therapies.

Participants included in the review
Patients were dually diagnosed with severe mental illness (such as schizophrenia) and substance use disorders (alcohol or other drugs). Patients met either State eligibility criteria for severe and persistent mental illness (i.e. major mental illness, chronicity, and disability) or met the diagnostic criteria for a long-term, major mental disorder (i.e. schizophrenia, schizoaffective disorder, recurrent major depression, or bipolar disorder). Alcohol was the most common drug of abuse in most studies, but many patients abused more than one substance.

Outcomes assessed in the review
Engagement in treatment, substance use behaviours and outcomes, hospital utilisation, and symptoms of mental illness.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the authors performed the selection.

Assessment of study quality
The authors do not state that they assessed validity.

Data extraction
The number of authors who independently extracted data from the studies was not stated.

Data were extracted on participant diagnosis and other features, interventions, follow-up period, attrition rate and outcomes.

Methods of synthesis
How were the studies combined?
Studies were summarised narratively.

How were differences between studies investigated?
Tests for heterogeneity were not performed.

**Results of the review**

Thirty-six studies were included in the review, comprising a total of 3897 participants.

In terms of research design, the 36 studies included 23 uncontrolled studies (open clinical trials) and 13 controlled studies (6 using quasi-experimental designs and 7 using experimental designs).

Included studies were divided into four categories according to their integrated treatment models: dual disorders treatment groups (4 studies; 97 participants); intensive integrated treatment (9 studies; 1716 participants), CSP demonstration projects for young adults with co-occurring disorders (13 studies; 1157 participants); and comprehensive dual disorder programmes (10 studies; 927 participants).

Dual-disorders treatment groups (4 studies): Patients who consistently attended a dual-disorders group benefited in terms of engagement in treatment (1 study), decreased use of the hospital (2 studies; 1 further study showed no differences), or increased abstinence (1 study, 1 further study showed no differences). One study showed no difference in psychiatric symptoms between those who attended a dual disorders group and those who did not. These studies raised concern that adding an outpatient group intervention by itself may not be sufficient to maintain most dual-disorders patients in treatment. They were also limited by selection of only motivated patients, small study groups, brief follow-ups, high drop-out rates, lack of control subjects, and reliance on self report.

Intensive integrated treatments (9 studies): Studies of intensive integrated treatment in inpatient, residential, and day treatment settings found that it was difficult to retain patients with dual disorders in intensive services. Patients who were retained in treatment did well during the intensive programmes, but once discharged, their relapse rates were high. There was minimal evidence for sustained improvement among patients who received intensive integrated treatment compared with controls. These studies were limited by high drop out rates and by the brevity of interventions.

CSP demonstration projects (13 studies): These studies showed that integrated dual-disorders services could be created in a variety of clinical settings. They also demonstrated that special populations could be attracted into services and that short term benefits typically included some reductions in hospitalisation and in severity of substance abuse. However, these research studies had serious limitations including: small study groups, changing programme models, lack of controls, nonstandardised measures, minimal statistical analyses, and use of clinicians as evaluators.

Comprehensive integrated treatment programmes (10 studies): Integrated treatment, especially when delivered for 18 months or longer, resulted in significant reductions of substance abuse and, in some cases, in substantial rates of remission, as well as reductions in hospital use and/or improvements in other outcomes. These studies are consistent with the hypothesis that patients with dual disorders can be successfully rehabilitated from substance use disorders and that integrated treatments are superior to nonintegrated treatments.

**Authors’ conclusions**

Studies of adding dual-disorders groups to traditional services, studies of intensive integrated treatments in controlled settings, and studies of demonstration projects have thus far yielded disappointing results. However, ten recent studies of comprehensive, integrated outpatient treatment programmes provide encouraging evidence of the programme’s potential to engage dually diagnosed patients in services and help them reduce substance abuse and attain remission. Outcomes related to hospital use, psychiatric symptoms, and other domains are less consistent. Several programme features appear to be associated with effectiveness: assertive outreach, case management, and a longitudinal, stage-wise, motivational approach to substance abuse treatment. Given the magnitude and severity of the problem of dual disorders, more consistent controlled research on integrated treatment is necessary.

**CRD commentary**

The review focuses on a clear review question and inclusion criteria were appropriate. The primary studies were summarised appropriately. The search could have been extended to include other databases such as PsycLIT and EMBASE. It could also have involved handsearching and an attempt to identify grey literature. The validity of included
studies was not assessed, which means that inappropriately high weighting may have been given to methodologically poor studies. Details of studies of comprehensive integrated treatment programmes were tabulated. It may also have been useful to tabulate details of the other studies, which were described in the text.

The conclusions follow from the results.

**Implications of the review for practice and research**

**Practice:** The authors suggest that programmes must be comprehensive, including assertive outreach, case management, and stage-wise, motivational interventions for substance abuse. Treatment interventions should be guided by programme manuals, and implementation should be measured carefully with fidelity measures. Assuring medication compliance and adequate response should also be critical factors in dual disorders treatment.

Research: The authors suggest that given the magnitude of the problem of dual disorders, more controlled research is needed. Research is needed not only to examine integrated versus nonintegrated treatment programmes, but also the different components of integrated interventions. They suggest that studies should have control groups and enough patients to achieve statistical validity. Programmes and services should span for at least 2 years due to the fact that substance use disorders, like mental disorders, are chronic and relapsing.

In terms of measurement of substance abuse in future research, the authors suggest that at least one other source, such as multiple instruments, clinical ratings, or laboratory tests should supplement self report. Assessment also needs to measure patients' stages of recovery.

They also note that studies regarding adjunctive pharmacological treatment for substance abuse among dually disordered patients are needed. No controlled studies have examined disulfiram, naltrexone, or other medications that reduce alcohol use or craving.

More research is required on various types of heterogeneity among patients: motivated versus unmotivated patients, men versus woman, patients with substance dependence versus substance abuse, those with polysubstance abuse versus those with alcohol abuse alone, those with trauma histories versus those with none, and those with antisocial behaviour versus those with none.

Greater understanding of the organisation and costs of these treatment systems is another important research need. Integrated dual-disorders treatment has the potential to reduce costs substantially, but this potential needs to be evaluated in controlled studies. Because patients with dual disorders consume extensive resources outside the mental health system, cost studies should include a societal perspective.

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