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title Does case management improve outcomes for people with schizophrenia?

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policy issue The Australian and New Zealand clinical practice guidelines recommend intensive case management for people with first-episode psychosis or an acute relapse of schizophrenia.¹

Case management is a collaborative, community-based program designed to ensure people receive quality health care and integrated support services. Case management is often initiated following discharge from hospital or transfer from community-based acute care. It involves a nurse, social worker or other clinician overseeing a patient's treatment and wellbeing.²

Along with drug therapy, case management may provide substantial benefits for people suffering severe mental illnesses like schizophrenia. However before case management services are made universally available, more work needs to be done to determine when, and for whom, these services are most effective.

what does the evidence say?

Systematic reviews assess the results of multiple independent studies on a topic. They are regarded as a reliable source of research evidence, especially when they pool data from individual studies and analyse the combined results (a meta-analysis). Four systematic reviews have been done on the effectiveness of case management for people with schizophrenia.

The first major systematic review in this area was published in 2007 in the *British Medical Journal*.² It was primarily concerned with the impact of case management for patients with schizophrenia on hospital length of stay. By combining results from 29 individual randomised controlled trials (RCTs), this review found that patients who received case management tended to spend less time in hospital. The shorter hospital stays came about because patients received better integrated and coordinated care out of hospital.

Another systematic review, published by the Cochrane Collaboration in 2010, also came to the conclusion that case management was beneficial for patients with severe mental illnesses.³ In this review, however, researchers looked at the impact of intensive case management and compared it with standard community-based treatments (for example, ongoing antipsychotic medication with no psychosocial intervention). Intensive case management differs from standard case management in that it focuses on the integration of services provided by multidisciplinary teams whose members, because they have a relatively small caseload (usually less than 10-20 patients per clinician),^{2,4} are able to spend more time with each patient. Intensive case management is used to care for people with high levels of need, and a high risk of relapse and hospital readmission.³

In the 2010 Cochrane review, 27 RCTs were identified where intensive case management was compared with standard treatment.³ Overall results revealed that patients undergoing intensive case management had:

- Fewer days in psychiatric hospitals per month for up to 2 years following treatment (these findings were seen in 24 RCTs, but 11 of these RCTs found no difference in the total number of hospital admissions over 12 months).
- More contact with other psychiatric services over 12 months and fewer dropouts from treatment over the long-term (findings seen in 9 and 13 RCTs, respectively).
- Better overall functioning after 12 months and short-term (<6 months) improvements in quality of life (5 RCTs).
- Lower unemployment rates in the short-term (7-12 months), but this difference was not maintained in the longer term (4 RCTs).
- A greater ability to live independently at 12 months (5 RCTs).
- Less chance of being homeless in the short-term (<6 months) (1 RCT), but this was not found in the longer term (>12 months) (3 RCTs).
- Some improvement in psychiatric symptoms in the longer term (12 months), but not in the short-term (2 RCTs).

When the authors of the 2010 Cochrane review compared standard and intensive case management, they found that the only demonstrated benefit of intensive case

what does the evidence say?

management was that it lowered treatment dropout rates for up to 12 months afterwards.³ There were no differences in other outcomes such as hospitalisation and service use, medication compliance, employment, homelessness, substance use, mental state or quality of life.³

Patients with schizophrenia who also have substance abuse problems are particularly difficult to treat effectively. Two systematic reviews have examined the effectiveness of case management for these people; one was conducted by the Cochrane Collaboration in 2008, and the other was published in the *Journal of Substance Abuse Treatment* that same year.^{5,6} Both of the reviews found there was no benefit of intensive case management compared with treatment as usual (maintenance antipsychotics) on a range of outcome measures such as overall functioning, substance dependence, hospitalisation or service use, and treatment adherence. These findings raise questions about the value of intensive case management for schizophrenia patients with comorbid substance abuse.

what is the quality of the evidence available?

The available evidence on the effectiveness of case management services for patients with schizophrenia is generally of high quality, with findings consistently showing that patients benefit when they receive case management. It is worth pointing out, however, that while the two Cochrane reviews on case management mentioned above are considered to be high quality evidence because they adhere to stringent methodological guidelines, some of the individual studies included in them have considerable limitations.^{3,6} The quality of evidence generated by the 2007 *British Medical Journal* review is even less reliable because it included lower quality studies than the Cochrane review (i.e. studies other than RCTs), and there was high variability between the results of individual studies.²

One common problem evident with the studies in these systematic reviews is that they do not clearly explain how they randomly allocated patients to treatment groups (case management or usual care). Random allocation is a key way of ensuring that the two patient groups are comparable and that the findings of the study are of high quality. Some studies included in the reviews also did not adequately explain how they made sure people assessing patient outcomes remained impartial (i.e. being 'blind' to which treatment group patients were in).

what does this mean for policymakers?

The evidence base in this field has some flaws, gaps and inconsistencies. This is not uncommon in health services research, and policymakers and health planners are often required to make decisions in the absence of very high quality evidence. In light of this, policymakers and health planners can be reasonably confident that many people with schizophrenia will benefit if they receive case management services. However, it is not yet clear whether intensive case management has any additional benefits over standard case management. Patients with schizophrenia and substance abuse problems do not appear to benefit from case management; comorbid substance abuse in schizophrenia is a serious clinical problem for which more treatment research is required.

key readings and references

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