A comparison of assertive community treatment and intensive case management for patients in rural areas

Meyer P S, Morrissey J P

CRD summary
This review assessed the effectiveness of assertive community treatment and intensive case management for patients with mental illness living in rural settings. The authors concluded that these interventions may be beneficial with adequate resource provision, but more research is needed. Limitations of the included studies appear to have been considered and the authors’ conclusions are likely to be reliable.

Authors’ objectives
To assess the effectiveness of assertive community treatment and intensive case management for patients with mental illness living in rural areas.

Searching
PsycINFO and PubMed Central were searched from 1973 to 2005.

Study selection
Study designs of evaluations included in the review
Studies were eligible for inclusion if they used a true experimental design. The included studies were randomised and controlled trials.

Specific interventions included in the review
Studies were eligible for inclusion if they met specific criteria to assess the effectiveness of assertive community treatment or intensive case management interventions in rural settings. The criteria for assertive community treatment included caseloads shared by team members, most services delivered directly rather than brokered to other community resources, and team included a psychiatrist or nurses. The criteria for intensive case management included individual caseloads, small caseload ratios of no more than one staff person to 15 consumers, and brokered services of negotiations and coordination of care in the community.

Participants included in the review
Studies involving patients with mental illness and living in rural communities were eligible for inclusion. The included studies identified patients living in rural areas with severe mental illness and functional impairment, risk of psychiatric admission, or prior hospitalisation.

Outcomes assessed in the review
Studies identifying rural interventions with outcomes comparable to assertive community treatment programmes used in urban areas were eligible for inclusion. The included studies assessed time in hospital, symptoms, housing, level of functioning, quality of life, social and vocational functioning, and satisfaction.

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

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

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction.

Outcomes for the treatment and control groups were used to calculate differences or effect sizes for each study.
Methods of synthesis
How were the studies combined?
The studies were described narratively and summarised in tabular format.

How were differences between studies investigated?
The studies were grouped by intervention type.

Results of the review
Two randomised trials and one controlled study were included in the review (n=549).

Assertive community treatment.
One study reported no significant differences between the intervention (rural integrated service agency) and rural control groups for average number of days hospitalised per year, although rate of hospitalisation was significantly lower in the intervention group for the first 2 years (chi-squared 5.7, p=0.017 in year one; chi-squared 5.2, p=0.023 in year 2). No significant differences were found for symptoms, rates of arrest, medication compliance, homelessness, or criminal victimisation. Findings for the rural intervention were comparable to those for urban intervention outcomes. The second study reported reduced number of days hospitalised for the intervention group (F=5.33, p=0.002), but no significant differences were found for symptoms, level of functioning, or social support.

Sample sizes for the two studies were 214 and 182, and follow-up durations were 3 years and 1 year.

Intensive case management.
This study reported significant differences between groups for quality of life and Brief Psychiatric Rating Scale scores, favouring the intervention group (t=3.85, p<0.01 and t=2.12, p<0.05, respectively). No significant differences were reported for hospitalisation outcomes, legal outcomes, or vocational functioning. However, the total number of days hospitalised was higher for the control group (t=2.21, p<0.05, effect size 0.39).

Cost information
One study highlighted the high costs for rural integrated service agency interventions and recommended use in rural and urban high service users only.

Authors' conclusions
Uncertainties remain around resource requirements and the effectiveness of assertive community treatment and intensive case management for patients in rural settings. Further research is required.

CRD commentary
The review questions were not stated clearly and the inclusion criteria were limited and not clearly defined. Appropriate databases were searched. However, it is unclear whether publications were restricted to those in English, which might have introduced language bias. There was no apparent search for unpublished material and it is therefore possible that relevant papers might have been missed. No details of the review process were provided, which means that the potential for reviewer error and bias cannot be ruled out. In addition, the absence of a validity assessment means that the reliability of the included studies and their subsequent synthesis is unclear.

The synthesis and comparison of the comparison groups was further limited by the small number of included studies and small sample sizes. Furthermore, important clinical details were not presented, and clinical and methodological heterogeneity was reported. The authors appear to have included a number of other studies in their results, one of which did not meet the inclusion criteria, and the results and discussion were amalgamated. However, the authors appear to have considered the limitations of the included studies and their conclusions are likely to be reliable.
Implications of the review for practice and research
Practice: The authors stated that assertive community interventions and intensive case management may reduce length of hospital stay when provided by fully staffed treatment teams. However, this measure does not reflect effectiveness. Such interventions may be beneficial in rural communities as they include multidisciplinary teams to provide greater access and improved support to both patients and staff. Similarly, intensive case management may provide a suitable alternative to assertive community interventions, but only when provided in conjunction with other services.

Research: The authors stated that future studies should investigate the effectiveness of modified assertive community interventions, and fill the gaps in research to increase the evidence base for their use in rural communities.

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