Collaborative care involving pharmacotherapy was cost effective for increasing anxiety free days in panic disorder

Katon WJ, Roy-Byrne P, Russo J, et al. Cost-effectiveness and cost offset of a collaborative care intervention for primary care patients with panic disorder. *Arch Gen Psychiatry* 2002;59:1098–104.

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QUESTION: In primary care patients with panic disorder, is collaborative care (CC) involving pharmacotherapy more cost effective than usual care (UC) for increasing anxiety free days?

Design

Cost effectiveness analysis (from a payer or plan perspective) based on a randomised (allocation concealed)*†, blinded (outcome assessors)*, controlled trial with 12 months of follow up.

Setting

3 primary care clinics in Seattle, Washington, USA.

Patients

115 patients who were 18–65 years of age (mean age 41 y, 57% women), met *DSM-IV* criteria for panic disorder with ≥ 1 panic attack in the past month, spoke English, and had a telephone. Exclusion criteria were current psychiatric treatment or disability benefit claims. Follow up was 94%.

Intervention

Patients were allocated to a multifaceted CC intervention (n=57) or UC (n=58). The CC intervention consisted of an initial psychiatric visit at which paroxetine was prescribed (10 mg/d to start, with increases to a maximum of 40 mg/d); an educational videotape on panic disorder; 2 follow up psychiatric telephone calls; and an offer of a second visit if necessary in the first 8 weeks. The primary care physician received a consultation note after each psychiatric visit. Psychiatrists telephoned the patients 5 times during months 3–12.

Main cost and outcome measures

Anxiety free days; incremental cost effectiveness, defined as cost per additional anxiety free day; and healthcare resource use. Costs were estimated in 1998–2000 US dollars.

Main results

The mean number of anxiety free days was greater in the CC group than in the UC group ($p=0.003$) (table). Mean cost for psychiatric medications was greater in the CC group than in the UC group (\$589 v \$486, $p=0.01$). Average total outpatient mental health (MH) costs (including psychiatric medications, MH visits, and intervention visits) were greater in the CC group than in the UC group ($p=0.02$) (table). Incremental cost effectiveness ratios (adjusted for age, sex, clinic, and medical comorbidity) for total outpatient MH costs and total outpatient costs (including MH and non MH costs) were modest (table). Based on bootstrap confidence intervals, the CC intervention could be dominant (less costly and more effective than UC) and may have a total outpatient cost of up to \$14 per additional anxiety free day.

Conclusion

In primary care patients with panic disorder, collaborative care involving pharmacotherapy was more cost effective than usual care for increasing anxiety free days.

*See glossary.

†Information provided by author.

Collaborative care (CC) v usual care (UC) for panic disorder at 1 year†

Outcome	CC	UC	Incremental effect of CC (95% CI)	Incremental cost per additional anxiety free day (CI)
Mean anxiety free days	231	151	74 (16 to 122)	
Mean total outpatient mental health costs (US \$)	862	722	205 (–135 to 501)	3 (–2 to 11)
Mean total outpatient costs (US \$)	2104	3118	–325 (–1460 to 488)	–4 (–23 to 14)

†CI defined in glossary.

COMMENTARY

This study by Katon *et al* expands upon a randomised trial reported earlier that compared CC with UC for panic disorder in primary care.¹ This trial compares the number of anxiety free days between the 2 groups and presents an economic analysis that adopts a payer perspective.

Assessment of effectiveness showed a statistically and clinically significant increase in anxiety free days in the CC group. Patients randomised to the CC group had approximately 2 visits with a psychiatrist during the study and were prescribed paroxetine (85%), sertraline (10%), a tricyclic, or a benzodiazepine.¹ In contrast, only 25% of the UC group were referred to MH professionals¹ and, although the proportion receiving pharmacological treatment was not reported, it was reported that 65% of the medicated UC patients received various selective serotonin reuptake inhibitors.¹

Incremental cost effectiveness ratios were analysed using a bootstrap technique, after adjustment of the cost and effectiveness estimates for potential confounders. The CC intervention improved outcomes while increasing MH costs. However, a cost offset occurred such that the data suggested reduced total costs for CC by reducing healthcare costs other than MH costs. If replicated, this is an important finding because costs offsets have rarely been identified in similar studies of depressive disorders, and dominance (reduced costs, improved outcomes) would have obvious relevance for policy.

The CC intervention is clearly feasible for settings possessing collaborative linkages between primary care practitioners and MH specialists, so the generalisability of the results requires confirmation. In addition, the intervention presumes the recognition of panic disorder. Finally, it remains unclear whether the positive effect of the intervention is attributable to the CC package or to some of its components, for example the prescribing of adequate pharmacological treatments at baseline.

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1 Roy-Byrne PP, Katon W, Cowley DS, *et al*. A randomized effectiveness trial of collaborative care for patients with panic disorder in primary care. *Arch Gen Psychiatry* 2001;58:869–76.