A stepped care programme for depressive or anxiety disorders offers good value for money

QUESTION

Question: Can cost-effective preventive strategies be developed to reduce the onset of mental disorders in an older population?

Patients: 170 patients over 75 years old presenting with subclinical depressive or anxiety symptoms; 74% were women. Patients had a score of 16 or higher on the Center for Epidemiologic Studies Depression (CES-D) scale but did not meet DSM-IV diagnostic criteria for depression or the Mini International Neuropsychiatric Interview criteria for anxiety disorders.

Setting: The Netherlands; time unclear.

Intervention: The intervention was a stepped care programme with four interventions that could be used as necessary in cycles of 3 months: watchful waiting, bibliotherapy, problem-solving treatment and antidepressant medications. Depression symptom severity was monitored using CES-D. The control group received routine primary care.

Outcomes: MINI/DSM-IV diagnostic status of depressive and anxiety disorders; proportion of patients who had a disorder free year; cost effectiveness (incremental cost-effectiveness ratios) from a societal perspective (costs in € at 2007 prices).

Patient follow-up: 72% in the intervention group and 90% in the control group.

METHODS

Design: Pragmatic randomised controlled trial with economic modelling.

Allocation: Unclear.

Blinding: Single blind (interviewers were blinded to the patient's treatment).

Follow-up period: 12 months.

MAIN RESULTS

The risk of depressive and anxiety disorders was reduced by the stepped care programme (RR 0.49, 95% CI 0.24 to 0.98). The absolute risk of developing depressive or anxiety disorders in this group was 11.6%. The absolute risk in the control group was 23.8%. The incremental effectiveness was 0.12 (95% CI 0.01 to 0.24). The economic analysis showed that on average the intervention cost €563 (£412) per recipient. The incremental cost was determined as the difference in cost between the intervention and control groups (€532). The incremental effectiveness was determined as the probability of a depression/anxiety free year in the intervention group (0.88) less the probability of a depression/anxiety free year in the routine care group (0.76). The mean ICER in this study was therefore estimated to be €4367 (£3196) per depression/anxiety-free year gained. When willingness to pay was estimated at €5000, €10 000 and €20 000, the probability of being more cost-effective than routine care was 57%, 86% and 94% respectively.

CONCLUSIONS

The stepped care programme halved the risk of depression and anxiety in an older person at-risk population compared with routine primary care. The costs per disorder-free year gained are good value for money if the willingness to pay threshold is at least €5000.

ABSTRACTED FROM

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Depression and anxiety disorder have a high prevalence in older people and significantly impact on their well-being and functioning. Given the limited capacity of adequate treatments for this clinical population and considerable obstacles in case recognition, diagnosis and provision of treatment, health professionals have long recognised the need for prevention programmes that are clinical and cost-effective. In a recent randomised controlled trial, van't Veer-Tazelaar and colleagues demonstrated the effectiveness of a stepped care prevention programme for depression and anxiety disorders in older people at high risk of developing these conditions.¹ In this paper, they present the results of a comprehensive economic evaluation that was conducted alongside the trial. They demonstrate that the probability the prevention programme is cost-effective exceeds 50% at willingness to pay thresholds of at least €5000 for their primary unit of health outcome, a disorder-free year gained.

The study design, data collection methods and reporting and interpretation of study results meet the requirements for rigorous health economic evaluation currently applied by health economists. However, the paper raises a number of pertinent issues for clinicians and decision-makers as they consider its implications for practice. First, the health outcome used by the authors, the disorder-free year gained, was based on patients' risk of developing depression or anxiety rather than the quality-adjusted life year metric,² which is more useful for comparative purposes and in line with methodological guidance.³ As a result, decision-makers may struggle to determine whether a probability of cost-effectiveness of 57% at a willingness to pay threshold of €5000 per disorder-free year gained represents good value for money. Second, the economic evaluation follows the time horizon of the randomised controlled trial, namely the period between randomisation and 12-month follow-up. Restricting the evaluation to this time horizon may

have underestimated the long-term cost-effectiveness of the programme, since the additional participants in the intervention group without depression or anxiety are likely to continue to generate disorder-free years beyond 12 months. Third, the stepped-care prevention programme consisted of four sequential steps: watchful waiting, bibliotherapy, problem-solving treatment and antidepressant medication. Although the authors note that the costs attributable to the prevention programme might be reduced by re-ordering the steps, the costs and consequences of its component parts are likely to be synergistic rather than independent. Further trial-based economic evaluations will be required to assess the cost-effectiveness of restructured stepped-care prevention programmes.

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Competing interests None.