

Computerised Cognitive Behavioural Therapy For Adults With Depression

Executive Summary

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2011

Background

Depression is common and affects 121 million people worldwide. It is a leading cause of disability globally as well as in Malaysia. Depression can become chronic or recurrent. It can lead to substantial impairments in an individual's ability to take care of his or her daily activities of living. Depression causes the largest amount of disability accounting 12% of all disability and at its worst depression can lead to suicide, a tragic fatality associated with the loss of one million lives per year. Cognitive Behavioural Therapy (CBT) has been recommended for management of certain types of depression in adults. However, access to CBT is limited due to too few therapists available. Computerised CBT is a self-help option that offers patients the potential benefits of CBT with less therapist involvement.

Technical Features

Computerised cognitive behavioural therapy (CCBT) is a form of CBT, which is delivered using a computer either via a CD-ROM, DVD or the internet. It can be used as the primary treatment with minimal therapist involvement or as augmentation to a therapist-delivered programme where the introduction of CCBT supplements the work of the therapist. There are several software packages for CCBT such as Beating the Blues (BtB); Sadness Programme, Overcoming Depression: a five areas approach; MoodGym, Deprexis and Colour Your Life. CCBT can also be delivered via email or telephone.

Policy Question

Should computerised cognitive behavioural therapy be used for treatment of adults with depression?

Objective

To evaluate the clinical effectiveness, cost effectiveness and other issues related to computerised cognitive behavioural therapy for the treatment of adults with depression.

Methods

Electronic databases such as MEDLINE, PubMed, EBM Reviews-Cochrane Database of Systematic Reviews, EBM Reviews-Cochrane Central Register of Controlled Trials, EBM Reviews-Health Technology Assessment, EBM Reviews-Cochrane Methodology Register, EBM Reviews-NHS Economic Evaluation Database, Database of Abstracts of Reviews of Effects (DARE), Horizon Scanning database, INAHTA database, HTA database and FDA database were searched. No limits were applied to the search. Additional articles were identified from bibliographies of retrieved articles and hand-searching of journals. All relevant literature was appraised using the Critical Appraisal Skills Programme (CASP) and evidence was graded based on guidelines from U.S./Canadian Preventive Services Task Force and NHS Centre for Reviews and Dissemination (CRD) University of York, Report Number 4(2nd Edition), March 2001 for test accuracy studies.

Result and conclusion

Twelve studies were included in the clinical effectiveness review. The analysis of these results showed that there was significant reduction of psychological score in the CCBT group in all studies. When compared to controls, CCBT was as effective as CBT and superior to wait-list. It was as effective or slightly more effective when compared with Treatment As Usual (TAU) and as effective as Problem-solving Therapy (PST) and email therapy based on CBT. The pooled results of seven studies showed that CCBT was associated with significant improvement in Beck

Depression Inventory (BDI) score at post-treatment. The mean difference was -7.16 (95% CI -8.61,-5.72). There was no evidence of heterogeneity ($I^2 = 1\%$; $\text{Chi}^2=6.04$, $df = 6$ ($p=0.42$)). CCBT was found to be acceptable to majority of patients and the study results showed that high percentages of patients were satisfied with the treatment.

There were four studies on economic evaluation identified. All these economic evaluation were carried out alongside RCTs. The studies showed that CCBT is likely to be cost effective if the society is willing to pay a modest value for a significant change in depressive symptoms. The estimated license cost to start a CCBT programme in five psychiatric clinics in Malaysia and each clinic will see about 20 patients per month is about USD120,000 per annum (around USD100 or RM316.80 per treatment package).

Recommendation

Based on the review, there was evidence to suggest that CCBT is effective for the treatment of depression. The burden of depression in Malaysia is high where it is the leading cause for Years Live with Disability (YLD) in men and women. Many patients with depression have no access to treatment and considered as unmet need. CCBT may improve the accessibility of CBT to patients with depression. Using the current version of CCBT programmes in English, the cost per treatment is fairly reasonable since CCBT can be accessed either at the clinic, at home or at the office. CCBT may be recommended to selected group of patients with mild to moderate depression. It may also be used as an adjunct to antidepressants in patients with severe depression under the supervision of an experienced psychiatrist. The patients selected for this programme should be patients who have computers and internet access at home. These patients should also be proficient in computer and English. Criteria for selecting patients for this treatment should be developed before introducing CCBT program for adults with depression.

Since there is no local data on CCBT, it is recommended that research be carried out in Malaysia to assess the effectiveness, acceptability and feasibility of CCBT in our population before a nationwide program can be introduced.