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# Long-term outcome of cognitive behaviour therapy (CBT) clinical trials in central Scotland

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## ReFeR summary

### Aim/Principal research question

What is the long-term outcome of participants in 8 clinical trials of CBT for anxiety disorders and 2 clinical trials of CBT for psychosis?

### Factors of interest

Are there significant differences in effectiveness and cost-effectiveness associated with receiving CBT in comparison with alternative treatments?

### Methodology

An attempt was made to contact and interview all of the participants in 8 randomised, controlled, clinical trials of CBT for anxiety disorders and 2 randomised, controlled, clinical trials of CBT for schizophrenia conducted between 1985 and 2001. Case note reviews of healthcare resources used in the 2 years prior to entering the trials and the 2 years prior to follow-up interview were undertaken.

Follow-up interviews took place between 1999 and 2003, 2 to 14 years after the original treatment. The same procedures were followed in all 10 trials as approved by the medical research ethics committees. Consent to contact patients was sought from GPs in Trials 1-8 and also from consultants in Trials 9-10. Interviews for Trials 1-8 were conducted by a research psychologist who was blind to treatment condition in the original trial. Interviews for Trials 9-10 were conducted by community psychiatric nurses also blind to treatment condition. Case note reviews were completed following the interview for those patients who gave consent.

## **Sample groups**

An attempt was made to follow-up all 1071 entrants to the ten studies of whom 125 were not available to be contacted. Of the 946 who were available, 489 agreed to participate (46% of original trial entrants, 52% of those available to be contacted).

## **Outcome measures**

For Trials 1-8 the main interview-based outcome measures were: Anxiety Disorders Interview Schedule - DSM IV for diagnosis and comorbidity, Clinical Global Severity (0-8), and the Hamilton Anxiety Rating Scale. The main patient-rated measures were: Brief Symptom Inventory, SF-36 II, Clinical Global Improvement (1-7), Positive and Negative Affect Scale and the trait version of the State-Trait Anxiety Inventory. For Trials 9-10 the primary outcome measure was the interview-based Positive and Negative Syndrome Scale (PANSS).

## **Findings**

For the anxiety disorders 52% of patients had at least one diagnosis at long-term follow-up with high levels of comorbidity and health status scores comparable with the lowest 10% of the general population. Only 18% had no or only mild symptoms and 31% had moderate subthreshold symptoms. Despite generally poor health, 80% of the participants felt that they had improved to some degree since the original trial. Only 36% reported receiving no interim treatment for anxiety over the follow-up period and 19% reported constant treatment. There was a 40% real increase in healthcare costs over the two time periods over half of which

was due to an increase in prescribing. A close relationship was found between poor mental and physical health for those with a chronic anxiety disorder. Patients with a diagnosis of PTSD did particularly poorly.

For the anxiety disorders treatment with CBT was associated with a better long-term outcome than non-CBT in terms of overall symptom severity but not in regard to diagnostic status. The positive effects of CBT found in the original trials were eroded over longer time periods and there is no evidence of intensity of therapy being related to long-term outcome. Long-term outcome was found to be related to the complexity and severity of presenting problems at the time of referral, to completion of treatment irrespective of modality and to the amount of interim treatment during the follow-up period. The quality of the therapeutic alliance, measured in two of the studies, was not related to long-term outcome but was related to short-term outcome.

The cost-effectiveness showed no advantage of CBT over non-CBT. For the anxiety patients, CBT was associated with slightly higher costs than non-CBT and slightly higher benefits. For treatment completers, CBT was associated with somewhat lower costs and slightly higher benefits when compared with the non-CBT group and non-completers. The costs of providing CBT in the original trials was only a small proportion (6.4%) of the overall costs of healthcare for this patient population.

Outcome for participants in the two psychosis trials was generally poor: only 10% achieved a 25% reduction in total PANSS scores from pre-treatment to long-term follow-up. 93% of the participants reported almost constant treatment over the follow-up period. Treatment with CBT was associated with more favourable scores on the 3 PANSS subscales. However, there were no significant differences between CBT and non-CBT groups in the proportions achieving clinically significant change and very few psychosis patients maintained a 25% reduction in PANSS scores at long-term follow-up regardless of treatment modality.

## Conclusions

1. Psychological therapy services need to recognise that anxiety

disorders tend to follow a chronic course and that good outcomes with CBT over the short-term are no guarantee of good outcomes over the longer-term.

2. Clinicians who go beyond standard treatment protocols of about ten sessions over a six-month period are unlikely to bring about greater improvement.

3. Poor outcomes over the long-term are related to greater complexity and severity of presenting problems at the time of referral, failure to complete treatment irrespective of modality, and higher amounts of interim treatment over the follow-up period.

4. The relative gains of CBT are greater in anxiety disorders than in psychosis.

### **Implications for future research**

1. Longitudinal research designs over extended periods of time (2-5 years), with large numbers of participants (500+), are required to investigate the relative importance of patient characteristics, therapeutic alliance, and therapist expertise in determining the cost-effectiveness of CBT in the longer-term.

2. A better understanding of the mechanisms by which poor treatment responders become increasingly disabled by multiple physical and mental disorders will require close collaboration between researchers in the clinical, biological and social sciences.

### **Project-related web site**

<http://www.hta.ac.uk/>

### **Publications**

Durham RC, Chambers JA, Macdonald RR, Power KG, Major K. Does cognitive behavioural therapy influence the long-term outcome of generalised anxiety disorder? An 8-14 year follow-up of two clinical trials. *Psychological Medicine* 2003;33:499-509.

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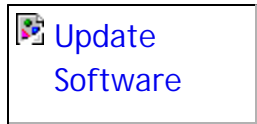
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