Correspondence

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Cognitive–behavioural therapy for schizophrenia

The Insight into Schizophrenia Research Group (Turkington *et al*, 2002) should be congratulated in reporting results of a large study of cognitive–behavioural therapy (CBT) plus educational handouts *v.* usual care in patients with post-acute schizophrenia. Perhaps because of space restrictions, the article leaves several important questions unanswered which it may be useful to consider here.

Regarding primary outcomes, the authors state that 25% change would represent 'good clinical improvement' and hence clinical significance but it is notable (from their Table 2: p. 525) that no outcome changed by more than 15%. We assume that the negative change score under burden of care is an error as it does not lie within the standard deviation range. Nevertheless, the authors state that the change in insight was clinically significant in the CBT group with a number needed to treat (NNT) of 10. As it is not stated in the article, perhaps the authors could clarify what thresholds for improvement in the primary outcome measures were chosen in order to calculate the NNTs. Without these, their comparison with the smaller studies by Kuipers *et al* (1997) and Tarrier *et al* (1998) (whose main NNTs were both 5) is not possible.

Concerning carer participation, it is not clear from the article whether the proportion of patients treated together with a carer was the same in both groups. As satisfaction was rated, how did the 75% rate of satisfaction in the CBT group compare with that in the treatment-as-usual (TAU) group? This is important because it will affect burden of care ratings and possibly other outcome measures, particularly over the follow-up period.

Perhaps the biggest obstacle in interpreting the study is the question of the equivalence of the arms of the study. This applies not only to the length of time given by the therapists, which should have been controlled, but also the expectation of the patients, and perhaps the educational material given out. Normally, in a randomised controlled trial the patient is blind to the potentially superior intervention. However, in this study 'all TAU patients were told that they would receive CBT intervention at the end of the follow-up period', thus indicating to patients and carers that they were in the control arm of the study.

Despite the large sample size, the study may have still been underpowered to detect the effect of a brief and relatively weak intervention delivered by non-expert therapists. This is best illustrated by re-running the power calculation. Using the authors' own figures, attempting to find an intervention that improves symptomatology by 15% rather than 25% would require 1326 participants not 540. The effects of weak allocation concealment, potentially unequal carer participation and other factors noted by the authors will no doubt impact upon follow-up data but it will be of interest to find out whether the modest effects detected at 5 months will be translated into clinically meaningful changes in readmission rates or functioning at 9 months and beyond (Sederer *et al*, 1996).

Kuipers, E., Garety, P, Fowler, D., *et al* (1997) London–East Anglia randomised controlled trial of cognitive–behavioural therapy for psychosis. I: Effects of the treatment phase. *British Journal of Psychiatry*, **171**, 319–327.

Sederer, L., Dickey, B. & Hermann, R. (1996) The imperative of outcomes assessment in psychiatry. In *Outcomes Assessment in Clinical Practice* (eds L. Sederer & B. Dickey). London: Williams and Wilkins.

Tarrier, N., Yusupoff, L., Kinney, C., *et al* (1998) Randomised controlled trial of intensive cognitive behaviour therapy for patients with chronic schizophrenia. *BMJ*, **317**, 303–307.

Turkington, D., Kingdon, D., Turner, T., *et al* (2002) Effectiveness of a brief cognitive–behavioural therapy intervention in the treatment of schizophrenia. *British Journal of Psychiatry*, **180**, 523–527.

R. Ruddy, A. Mitchell University of Leeds School of Medicine, Academic Unit of Psychiatry & Behavioural Sciences in Relation to Medicine, 15 Hyde Terrace, Leeds LS2 9LT, UK

Author's reply: We are grateful to Drs Ruddy and Mitchell for the opportunity to clarify the methodology in this study. In relation to the primary outcomes of the study, baseline means are given with change scores and confidence intervals and not standard deviations. The NNT of 10 for a 25% improvement in insight with CBT was calculated from the following results: 92 out of 257 CBT patients achieved a good clinical improvement compared with 43 out of 165 in the TAU limb. Similarly, a good outcome for overall symptoms was achieved in 112 out of 257 *v.* 59 out of 165 and for depression in 114 out of 257 *v.* 55 out of 165, respectively. The NNTs given can therefore be compared directly with those in the smaller studies listed above. The good outcomes in TAU are interesting and presumably relate to increased use of atypical antipsychotics and the effects of assertive outreach teams. The negative score given for burden of care in the CBT group should indeed be positive, as pointed out in the above correspondence. The proportion of patients treated with a carer was the same in both limbs of the study. However, as TAU patients and carers were not receiving an active comparable intervention to control for therapist time, satisfaction was not rated in that group.

This was the first pragmatic field study designed specifically to answer the question of translation as posed in the Cochrane review (Jones *et al*, 1999). We were aiming to discover whether any effect would accrue in a community setting with non-expert therapists using CBT. Having shown a clear effect to be present the study should now be replicated with a control psychological treatment to control for non-specific factors (Sensky *et al*, 2000). It will be important that this study be run from a position of clinical equipoise as indicated above. The study was adequately powered to detect the symptomatic improvement at the 25% level as calculated from our pilot study (Turkington & Kingdon, 2000). The follow-up study will deal with the issue of whether or not these clinically meaningful outcomes are durable and will also include data on relapse.

Jones, C., Cormac, I., Mota, J., *et al* (1999) Cognitive behaviour therapy for schizophrenia. In *Cochrane Collaboration* (Issue 4). Oxford: Update Software.

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