

# Estimating the dose-response effects for psychological treatment for depression from an RCT with both partial compliance and loss to follow-up

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## **Abstract:**

We reanalyse data from a randomised controlled trial of non-directive counselling (NDC), cognitive-behaviour therapy (CBT), and usual general practitioner care (GP) for the treatment of depression or mixed depression and anxiety from 13 general practices in north London and 11 in Greater Manchester in the United Kingdom (Ward et al., 2000).

Randomisation allocated patients to one of three groups: CBT, NDC, or routine GP care. The average number of appointments kept in the CBT group was around 5 (out of a planned 12 sessions). In the NDC arm it was 6. Of those offered treatment in both the groups of CBT and NDC, but who did not comply with the offer only around 86% and 89% provided outcome data, respectively.

We estimated the dose-response effect of treatment received using a variety of methods based on the use of instrumental variables (including the Structural Mean Model) and different assumptions concerning the missing data mechanism (Ignorable or Latently Ignorable), and also compared the performance of the methods using Monte Carlo simulation.

## **Reference:**

Ward, E. King, M. Lloyd, M. Bower, P. Sibbald, B. Farrelly, S. Gabbay, M. Tarrier, N. Addington-Hall, J. (2000). Randomised controlled trial of non-directive counselling, cognitive-behaviour therapy, and usual general care for patient with depression. *BMJ*, 1383-1388.