

LEARNING ABOUT MISSING DATA IN A PSYCHIATRIC TRIAL

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A recently conducted multicentre randomised controlled trial found no evidence of the effectiveness of adherence therapy for people with schizophrenia (British Journal of Psychiatry 189, 508–514). However there is a fairly large amount of missing data which, when coupled with the concern that the missing data mechanism is likely to be related to the study outcome, leaves the inferences from complete cases analyses in some doubt. We propose a general model that incorporates an informatively missing data mechanism. This model makes parametric assumptions but no unrealistic conditional independence assumptions. We first use the model for sensitivity analysis; then we use two further data sources to lessen the impact of the missing data and to help identify the missing data mechanism. Firstly, proxy outcomes, in the form of carers' assessments of patients, are incorporated into the analysis under various assumptions. Secondly, information about the number of attempts required to obtain outcome data is used.

We find that estimates of the treatment effect are fairly robust to departures from the missing at random assumption. Further, analysis using the number of attempts lends some support to the assumption that the unobserved data are missing at random. Collecting proxy outcomes and recording the number of attempts required to obtain outcome data are likely to be useful in other randomised controlled trials with missing data.