

# Methods of explanatory analysis for psychological treatment trials workshop

Thursday 17<sup>th</sup> September 2009 09.30-17.00

*IHS seminar rooms G306a/b Ground floor, Jean McFarlane Building,  
The University of Manchester, Oxford Road, Manchester M13 9PL*

This workshop explores methods for inferring the effects of treatments or exposures when there is mediation and moderation of the treatment effects by intermediate variables, and may be additional departures from a subject's random allocation. This is crucial to answering both pragmatic and explanatory questions in order to understand the underlying nature of the clinical problem being tested. Using recent advances from the causal inference literature we provide a non-technical introduction to the estimation of treatment effects, and building on the popular but fallible Baron and Kenny approach, we present alternative statistical methods that evaluate both direct and indirect effects in the presence of hidden confounding between mediator and outcome. We introduce principal stratification, instrumental variables and structural mean models, and discuss various approaches for attaining identifiability of key parameters of the basic causal model.

The workshop will take the form of 4 classroom based sessions but will have a very practical emphasis, focusing on how to implement the methodology rather than the statistical theory underpinning it. Examples will be taken from recent trials in areas of mental health including psychosis and substance misuse, autism, self-harm and schizophrenia.

The target audience is psychologists, psychiatrists, statisticians and other methodologists, who are interested in carrying out this analysis on their datasets. The aim of the workshop is to provide the attendees with the background knowledge and practical skills to undertake the appropriate analysis. A prior understanding of regression models, and knowledge of SPSS and Stata would be an advantage.

**Presenters:** Graham Dunn, Richard Emsley, Andrew Pickles, Ian White

**Cost:** Free

**Capacity:** 60 attendees (preregistration required)

For more information and registration, please visit:

<http://www.medicine.manchester.ac.uk/healthmethodology/research/biostatistics/MRCMethodologyGrants/complex/workshop/>

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