Bayesian Methods for Missing Data: Part 1

Key concepts

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Abstract:

Bayesian full probability modelling provides a flexible approach for analysing data with missing values. In Part 1, we will provide an overview of the key concepts underlying Bayesian methods for dealing with missing data in the analysis of randomized trials and observational studies. Different types of missing data mechanisms and their implications for analysis will be discussed, and we will explain why it is helpful to distinguish between missing responses and missing covariates. We will focus particularly on Bayesian methods for dealing with non-ignorable missing data mechanisms, and introduce ways of incorporating realistic assumptions about the reasons for the missingness.

This talk will be followed by a second presentation (Part 2) which provides an illustrative application of a Bayesian analysis with non-ignorable non-response in a clinical trial.