



Imputation of Incomplete Multilevel Data with mice

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Abstract

Tutorial paper on imputing incomplete multilevel data with **mice**. Including methods for ignorable and non-ignorable missingness. AKA missing on so many levels.

Keywords: missing data, multilevel, clustering, R.

1. Outline door Thomas

- Why are standard (ad hoc) methods not well suited?
- What is heterogeneity? (i.e. variability within studies vs. variability between studies). Random effects for intercept term, predictor effects, and/or variance residual error
- Systematic vs sporadic missingness
- MICE approach: one-stage imputation versus two-stage imputation methods
- Imputation of study level versus patient-level covariates
- Handling MNAR
- Case study: `metamisc::impact()`

2. Think about adding

- JOMO in mice

3. References

- <https://onlinelibrary.wiley.com/doi/abs/10.1002/9781119333784.ch18>
- https://www.gerkovink.com/miceVignettes/Multi_level/Multi_level_data.html

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