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*Power Comparison of Discrete Data Methods with Repeated Measurement Data in Small Sample*

Various analytical methods are available to analyze repeated measurement data for both continuous and discrete data. In the case of discrete data, most methods are based on asymptotic normality, requiring large sample size. Naturally, their small sample performance may not match the expectation satisfactorily. Two main methods, non-linear mixed effect model and generalized estimating equation method, are investigated for their small sample performance on repeated binary responses. Repeated binary data sets are generated with sample size of 20, 40, 60, 80 and 100. Two methods are applied to each data set and power is compared, along with their coverage probabilities.