

Robust Score Test for Treatment Effects for Paired Continuous and Ordinal Data

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Abstract

By assuming independence between the paired continuous and ordinal responses, we develop a score statistic for testing the difference between two treatment effects for the paired mixed data. The test is easy to implement and is legitimate for general marginal distributions and in the presence of within-pair correlation. Simulations show that our new method outperforms the generalized estimating equations (GEE) and the generalized linear mixed model (GLMM) in terms of performance measures most concerned. This is a joint work with Tsung-Shan Tsou.