**Abstract Type:** **Individual Paper Presentation**

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**Introduction**

The most common and well-known meta-regression models work under the assumption that there is only one effect size estimate per study and that the estimates are independent. However, meta-analytic reviews of social science research often include multiple effect size estimates per primary study, leading to dependence in the estimates. An increasingly popular method to handle dependence is robust variance estimation (RVE), but this method can result in inflated Type I error rates when the number of studies is small. Small-sample correction methods for RVE have been shown to control Type I error rates adequately but may be overly conservative, especially for tests of multiple-contrast hypotheses. We evaluated an alternative method for handling dependence, cluster wild bootstrapping (CWB), which has been examined in the econometrics literature but not in the context of meta-analysis.

**Objective**

The objective of the present study was to evaluate CWB as a technique for conducting hypothesis tests in meta-regression models.

**Methods**

We conducted two simulations studies to examine Type I error rates and power of several small sample corrections and CWB. We generated standardized mean differences and design matrices with balanced and imbalanced covariates. We examined the methods under several data-generation conditions, including a range of the number of studies in meta-analyses.

**Results**

The results showed that CWB maintained Type I error rates adequately at the nominal alpha level across most conditions. Further, CWB had higher power compared to other small sample correction methods, particularly for multiple-contrast hypothesis tests.

**Conclusions**

Small-sample improvements of RVE have low power, especially for multiple contrast hypothesis tests. CWB maintains adequate rates of false positive results while providing more power to detect true variation when it exists compared to existing small-sample corrections, especially for multiple contrast hypothesis tests.