Power Analysis for Mediation Analysis

original standardized parameter estimate of path a:

0.39

original standardized parameter estimate of path b:

0.39

original standardized parameter estimate of path c':

0

level of uncertainty in the parameter estimates used for sample size planning:

125

Npilot is the size of the generated sample in Step 1 of the proposed method. The larger Npilot is, the lower the level of uncertainty. For example, Npilot can be specified as the sample size of the previous study that produced the original parameter estimates (i.e., std.ahat, std.bhat, and std.cphat) used for sample size planning.

desired power value:

0.8

desired assurance/probability for reaching the desired power value or higher:

0.8

significance level alpha:

0.05

a specific planned sample size for plotting the power distribution:

66

the range of planned sample sizes (separated by comma) for plotting the power/assurance curves:

50,150

a integer specifying the increment of the sequence of planned sample sizes for plotting the power/assurance curves

2

the number of generated samples for constructing the joint sampling distribution of the parameter estimates. The larger the number, the more accurate the joint sampling distribution

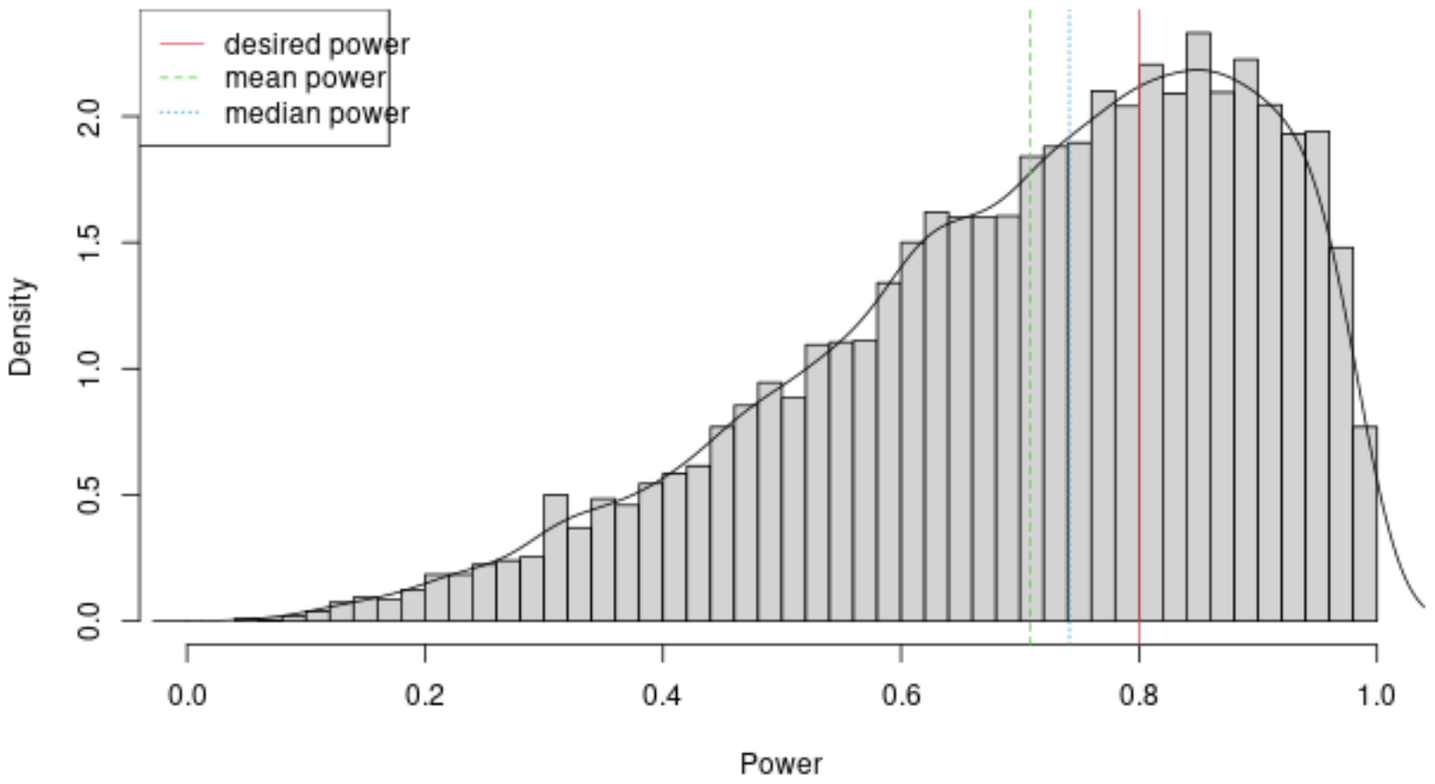
10000

Go

Power Analysis for Testing Mediation Considering Uncertainty in Effect Size Estimates

Liu, X. & Wang, L. (2019), Sample Size Planning for Detecting Mediation Effects: A Power Analysis Procedure Considering Uncertainty in Effect Size Estimates. Link

Power distribution for the specific planned sample size



Summary Statistics of the Power Distribution

Show 25 entries

Search:

MeanPower	MedianPower	Assurance
0.708691018408364	0.741494539485166	0.3822

Showing 1 to 1 of 1 entries

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Power/assurance curves for a range of planned sample sizes