

Correlation

Objective: Identify correlation between two continuous variables

A researcher wants to investigate whether there is a linear relationship between serum homocysteine levels and atherosclerosis in coronary arteries. He wants to detect a correlation of 0.5 or greater as he considers this a clinically- meaningful correlation level. Data will be obtained from the Electronic Medical Record system. The investigator needs to know how many records are needed to detect this degree of correlation with 80% power with a significance level of 5%.

Required Information	Inputs
What is the desired power for the test?	80%
At what significance level do you want to test your hypothesis?	5%
What degree of correlation between the two variables do you want to be able to detect?	0.5
Is your hypothesis one-sided or two-sided?	Two-sided

Select "Exact" and "Correlation"

Correlation coefficient to detect.

A total sample of at least 29 is needed.

Example using G*Power (available at <http://www.gpower.hhu.de/en.html>)