



CAN WE PLEASE STOP TALKING ABOUT POWER?

Four Situations When We Should Not Talk About Power

THE STUDY IS POSITIVE



When a study rejects its null hypothesis it is pointless to speak about power.

Power addresses the possibility of failing to reject the null hypothesis. If the study has a small p-value, and rejects the null hypothesis it is mathematically silly to talk about power.

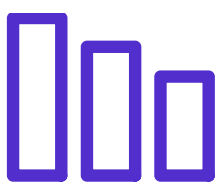
NOTHING IS KNOWN OF THE POPULATION



When little is known of the target population it can be dangerous to do a power calculation.

Power calculations are done before any data is collected, and we often don't really know enough about the target population to make accurate calculations.

SAMPLE SIZE NOT CONTROLLABLE



There is little point in doing a power calculation when the researcher cannot control the sample size.

The main reason for power calculations is to determine the appropriate sample size. If the sample size is out of the control of the researcher, the calculation is truly a waste of time.

HARMLESS INTERVENTIONS



When the effect of the intervention is harmless to the subjects power calculation has little practical utility.

Sample size calculation is critical with human subjects when they are being tested with a new and unproven medical treatment, but less important with benign treatments.