The impact of Exposure to a Positive Environment on People Attitude about the World and their Mental Health

EGAP Latin America Hub Learning Days

10 August 2023

Motivation

- Mental health is an essential part of people's lives and society
  - 1 in 3 women experience major depression in their live (Our World Data, 2023)
  - 1 in 5 men experience major depression in their live (Our World Data, 2023).
- Mental health deteriorates the socioeconomic status of populations (Reiss, 2013; Alegria, 2018).
- In recent years, there has been an increasing amount of research showing that being exposed to a positive environment can improve people perception about the sate of the world and, consequently, have an impact (see Newton, 2006 and Stieger, 2020).
- However, there is less evidence in developing countries.

Research question & Hypothesis

- Research question: What is the impact of being exposed to a positive environment (positive imagery) on how people perceive the world and their mental health?
- Hypothesis: Positive environments improve the way people perceive the world

Treatment

Treatment

Control

Outcome variables

- An individual's perception about the state of the world.
- "On a scale of 1-10 (1 being lowest, 10 being highest), how do you feel about the state of the world?"

Research design

- Population of interest: 2023 Mexico Learning Days Participants and Instructors
- Sample size = 29
- 2 conditions: 1 treatment and 1 control.
- Online survey (google forms) (implemented on laptops)
  - Shows treatment/control photo to respondent
  - Collects respondent's answer for outcome of interest
- Block randomization by gender (Female vs. male)
- In the block, each unit has probability 0.5 of being in treatment or control

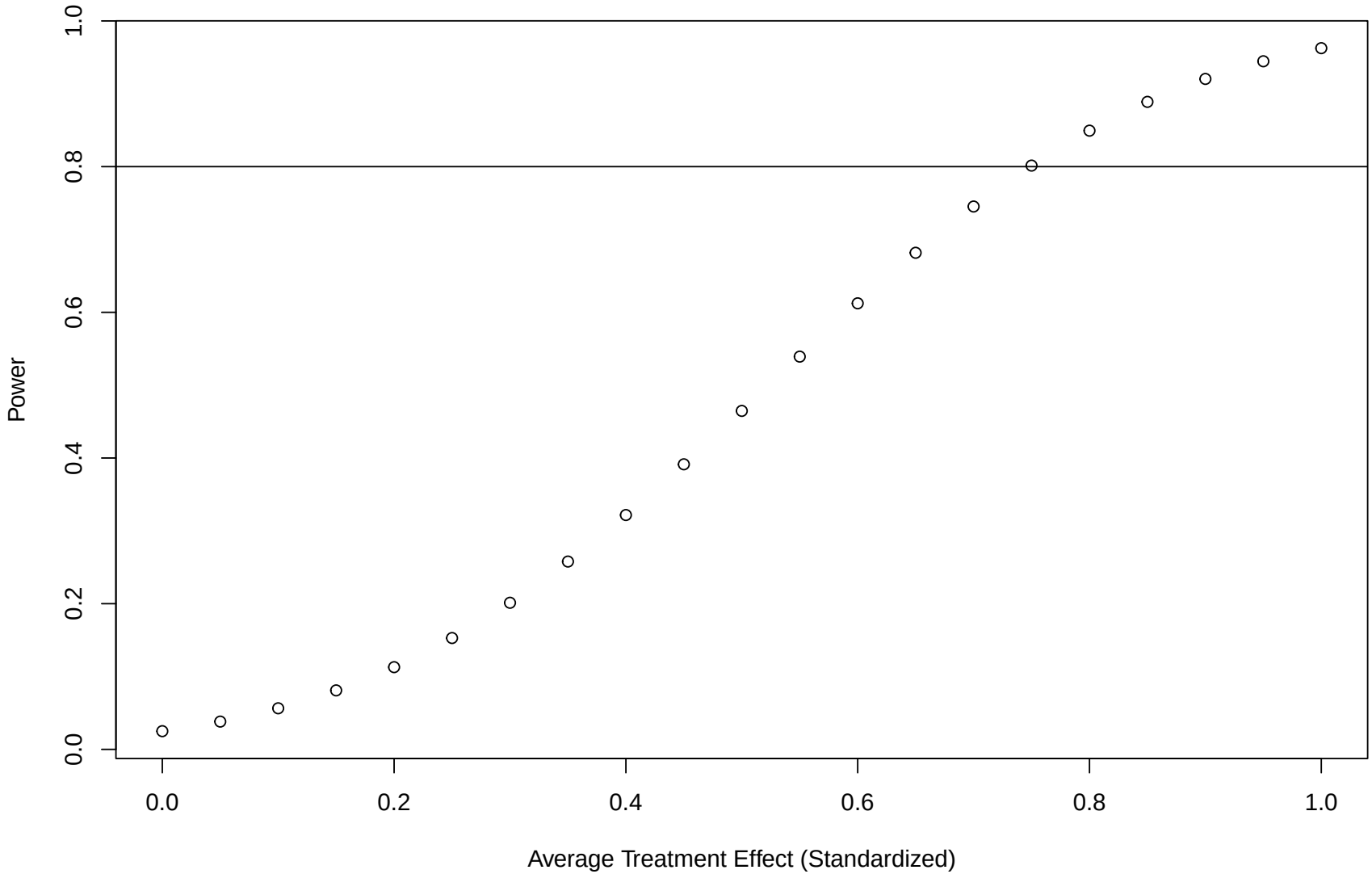
Answer Strategy/Estimation

- Block randomization, all units have the same probability of treatment assignment: linear regression with block fixed effects and robust standard errors

Power Analysis I

```
# power for n = 29, SD = 1, what can we find?
# ignoring blocks
some_taus <- seq(0,1,by=.05)
pow_by_tau <- sapply(some_taus, function(thetau){
power.t.test(n = 29, delta = thetau, sd = 1, sig.level = 0.
                })
plot(some_taus,pow_by_tau,
    xlab="Average Treatment Effect (Standardized)",
    ylab="Power")
abline(h=.8)
```

Power Analysis II



Next steps and concerns

- Non-interference?
- How to increase power?
- Avoid measurement bias?

Next

```
## Loading required package: randomizr

## Loading required package: fabricatr

## Loading required package: estimatr
```