

1 Thesis structure

1. ABSTRACT
2. INTRODUCTION
3. THE ISSUES OF MENTAL HEALTH
 - (a) Why is MH relevant
 - i. A rising problem (find statistics from many different countries)
 - A. MH issues: depression, anxiety, ADHD, OCD, BPD...
 - B. DSM-V definitions of disorders
 - C. Which disorders do I focus on?
 - ii. MH and social capital
 - iii. MH and public spending (prevention and treatment)
 - iv. MH and private spending
 - v. MH and healthcare spending (+talk about comorbidity between MH issues)
 - vi. MH and private choice (savings, childbearing, employment)
 - (b) Provide literature on MH in general (brief history, up to date literature) + on specific issues brought up in the previous point
 - (c) How is it measured?
 - i. Psychometric tools (most common scales, have they changed during the years)
 - ii. Reliability of questionnaires (self-administered and under supervision administered)
 - iii. Most frequently used ones + have they changed recently? How do their scores behave?
4. FRAMING THE RESEARCH QUESTION
 - (a) Q: how can we study the effect of MH on Y (education, free time use, employment, social networks quality and quantity, health outcomes)?
 - (b) Literature review focused on this question: strategies, weaknesses of most common strategies.
 - (c) Which data would I have in an ideal world?
 - (d) Which analysis would I do in the ideal setting?
 - (e) Using the pandemic as an identification tool.
 - i. Does the pandemic correlate with MH? Indicator of possible relevance of the instrument, so put a plot + R^2 .
 - (f) The identification challenge.
 - i. Reverse causality.

- ii. Measurement error.
 - iii. Simultaneity.
- 5. THE DATA
 - (a) SHARELIFE DATASET
 - i. Describe the dataset.
 - ii. What variables are relevant to me?
 - iii. Building a MH indicator + reference other literature.
 - iv. Plots and other graphic representation to explore and understand the dataset.
 - v. Potential collinearity between variables.
 - (b) PANDEMIC RESTRICTIVENESS DATA
 - i. Describe data
- 6. IDENTIFICATION STRATEGY
 - (a) IV approach
 - i. The method (brief explanation)
 - ii. The instruments + novelty of my new instrument
 - iii. Weaknesses + strenghts
 - iv. How to evaluate method performance
 - (b) ML/non-parametric approach to the first stage of IV
 - i. The method / methods
 - ii. Advantages and disadvantages with respect to regular IV
 - iii. How to evaluate method performance (MSE estimate across methods, cross-validation, k-fold cross-validation)
- 7. ESTIMATION
 - (a) Data cleaning (variables transformation)
 - (b) Run the models
 - (c) Plot results
 - (d) Comment results
- 8. DISCUSSION
 - (a) What did I find?
 - (b) How does it compare with the most reliable literature?
 - (c) How do the IV and IV+ML results compare?
- 9. CONCLUSION
 - (a) Recap
 - (b) How could the work be improved?
 - (c) What is the main contribution of my work?