

Report on Bachelor Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University

Student:	Anna Marie Břicháčková
Advisor:	PhDr. Jana Votápková, Ph.D.
Title of the thesis:	The effect of SSRIs on severity of COVID-19

OVERALL ASSESSMENT (provided in English, Czech, or Slovak):

Please provide a short summary of the thesis, your assessment of each of the four key categories, and an overall evaluation and suggested questions for the discussion. The minimum length of the report is 300 words.

Short summary

The thesis estimates the effect of antidepressants on the probability of severe COVID symptoms between March 1, 2020 and December 27, 2020 among 612,368 positively tested individuals. Anna applies logit and zero inflated binomial models on three different dependent variables, thus inspecting the issue in a considerable detail and robustness given data availability.

The variable of interest, SSRI usage turned positive and significant suggesting that SSRI users were more likely to be hospitalized with covid, however SSRI did not significantly influence the length of stay in the hospital.

It is notable that the first wave of COVID was positively and significantly responsible for more hospitalizations, whereas the second wave dummy resulted in a significantly negative coefficient.

Contribution

Before vaccination, antidepressants were deemed as a means to combat severe symptoms of COVID. The available empirical results on its effectiveness are mixed, often contradictory, however. The thesis aims to verify the effectiveness of such an approach to COVID treatment on Czech data and contributes to the empirical literature.

Methods

Anna proved a very advanced level of data processing and coding in R. She compiled 6 large datasets, filtered them, applied a chronic illness analysis, identified dummies based on a „look-back“ criteria which requires advanced R and Python programming. The methodology, particularly in the data preparation process is beyond the scope of a BA curricula.

Literature

Anna has carried out a very good literature review. The flow of thoughts is logical, her ideas are supported with relevant literature sources. There is obvious hard work behind compilation of the literature review as being able to compile it, Anna must have obtained deep clinical knowledge of the subject matter. Also the results and data section are supported by the literature.

At some points, the literature review misses academic style, however, considering that it is Anna's first academic piece of work, the style of her literature review is still above standards of a BA thesis.

Manuscript form

Technically the thesis is very good, however, the thesis often misses academic style and expressions. From the beginning we have been struggling with extensive expressions and unnecessary fillers exceeding the text. In this respect, Anna has improved significantly, however, the style would still deserve some polishing.

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Overall evaluation and suggested questions for the discussion during the defense

A reader notices Anna's enthusiasm and passion with which she wrote the thesis which I, as a supervisor, also highly appreciate. Cooperating with Anna has been very good from the start. She has been a very hardworking student and I hope that she will stay with health economics and will support our team of health economists at the IES.

Especially the data preparation process required a lot of effort and self-study and so did the clinical knowledge she had to gain before being able to write the literature review. There are minor issues particularly regarding the style of writing which will undoubtedly improve with additional practice at later stages of her studies.

In my view, the thesis fulfills the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University, **I recommend it for the defense and suggest a grade A. I also suggest that the committee considers an award for this thesis.**

The results of the Turnitin analysis do not indicate significant text similarity with other available sources

Questions for the defense:

1. What share of hospitalizations other than covid is there in the sample?
2. I find limiting hospitalization to 2 days after a positive test too restrictive. How would the results change (sample size, estimates) if the limit on hospitalizations increased to 3, 5, 7 days. I would assume that most of elective hospitalizations were limited, so most hospitalizations were due to covid anyways, right?

SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	30
<i>Methods</i> (max. 30 points)	30
<i>Literature</i> (max. 20 points)	20
<i>Manuscript Form</i> (max. 20 points)	19
TOTAL POINTS (max. 100 points)	99
GRADE (A – B – C – D – E – F)	A

NAME OF THE REFEREE: *PhDr. Jana Votápková, Ph.D.*

DATE OF EVALUATION: *August 26, 2024*

*Digitally signed (1.8.2024)
Jana Votápková*

Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

CONTRIBUTION: *The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.*

METHODS: *The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.*

LITERATURE REVIEW: *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

MANUSCRIPT FORM: *The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.*

Overall grading:

TOTAL	GRADE
91 – 100	A
81 - 90	B
71 - 80	C
61 – 70	D
51 – 60	E
0 – 50	F