

**BAHCESEHIR UNIVERSITY SCHOOL OF MEDICINE
RESEARCH METHODOLOGY FINAL EVALUATION FORM**

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Please write the name of the journal which you choose for literature search

Public Health - Elsevier

| QUESTIONS | ANSWERS |
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| TITLE AND CITATION | |
| 1. Write the full title of the article | Investigation of the prevalence of non-COVID-19 infectious diseases during the COVID-19 pandemic |
| 2. Citation of your chosen article (Please use APA Style) | Tanislav, C., & Kostev, K. (2022). Investigation of the prevalence of non-COVID-19 infectious diseases during the COVID-19 pandemic. <i>Public health</i> , 203, 53–57. https://doi.org/10.1016/j.puhe.2021.12.006 |
| 3. DOI number of article | https://doi.org/10.1016/j.puhe.2021.12.006 |
| INTRODUCTION AND AIM | |
| 4. What are the main objective(s) of the study? | The main objective of this study is to inspect non-COVID-19-related infections such as upper respiratory tract infections, gastrointestinal infections, and urinary tract infections during the COVID-19 pandemic in Germany. |
| 5. What are the hypotheses of the study? (If hypothesis are not written, please write “it is not written”) | It is hypothesized that the overall growth of consciousness about infectious diseases and hygiene during the pandemic will cause a decreased rate for all non-COVID-19 infectious diseases in a varying extent. |
| METHODS | |
| 1. What is the type of the study? | This study is a cross-sectional study. |
| 2. Describe the study population mentioned in the article. (Please describe the study population from which the sample was selected) | The target population is the residents of Germany since the rate of non-COVID19 infectious disease will be calculated for this specific region. The study population is all the patients whose data was available on IQVIA system (%3 of all private practices in Germany), which had similar characteristics with the target population. |

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| <p>3. If selected, write the sampling method used in the study (If not, please identify it).</p> | <p>This cross-sectional study was based on electronic medical record data from the Disease Analyzer database (IQVIA). IQVIA contains anonymized longitudinal data.</p> <p>Purposive sampling was used and samples that are most useful to the purpose of the research were selected.</p> |
| <p>4. What are the inclusion criteria(s) for participants?</p> | <p>The analysis included patients who received at least one diagnosis of URTI (ICD-10: J01-J09, J20-J22), GII (ICD-10: A08, A09) or UTI (ICD-10: N39.0) between April 2019 and March 2021 in one of 994 GP or 192 paediatric practices that routinely send data to IQVIA. A total of 1,976,547 individuals were studied.</p> |
| <p>5. What are the exclusion criteria(s) for participants?</p> | <p>There were no specific exclusion criteria other than not being fit into the inclusion criterias.</p> |
| <p>6. Which statistical analyses conducted in the study? (Please write only the names of statistical tests)</p> | <p>A one-sample Kolmogorov-Smirnov test</p> <p>Non- parametric Wilcoxon signed-rank test</p> <p>Chi-squared tests</p> <p>Pearson correlation coefficient</p> |
| <p>RESULTS</p> | |
| <p>1. Write the number of participants mentioned in the study.</p> | <p>A total of 1,976,547 individuals were studied.</p> |
| <p>2. Write the response rate and missing data proportion (If it is not written in the article, please write "it is not written")</p> | <p>It is not specified in the article but since all the participants had their data already recorded at the IQVIA system, response rate can be interpreted as %100.</p> |
| <p>DISCUSSION</p> | |
| <p>1. Write the potential bias sources of the study. (If it is not written in the article, please write your own ideas)</p> | <p>No potential source of bias was stated in the article, but purposive sampling may be prone to researcher bias since participants are obligated to bear specific characteristics to be involved in the research.</p> |
| <p>2. Write the limitations of the study. (If it is not written in the article, please write your own ideas)</p> | <p>This study bears several limitations:</p> <p>1- There weren't any additional information about other possible reasons for the decrease in the number of medical consultations.</p> |

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| | <p>2- Due to the pandemic, medical institutions may only have been able to accommodate a reduced amount of non-COVID-19 patients during the selected period.</p> <p>3-, URTI, GII and UTI diagnosis data relied only on ICD-10 codes. There wasn't any data about the diagnosis process or the severity/activity of the disease.</p> <p>4-, There were no information on behavioral factors such as alcohol intake, smoking or inactive lifestyle. Therefore, role of these factors was not able to be examined.</p> <p>5- Hospital data was unavailable and only outpatients were analyzed.</p> <p>This limitation is not stated in the article, but I would like to add that the fear of getting infected with COVID-19 might have led some of the patients to not visit clinics in an event of non-COVID-19 infection.</p> |
| <p>3. Write the strengths of the study. (If it is not written in the article, please write your own ideas)</p> | <p>Two strengths were mentioned in the article.</p> <p>1- The sample size was big and a massive number of patients were available for analysis.</p> <p>2- The analyses were done in a detailed manner, using real-world data.</p> <p>The main "medical point of contact" for the infections which were studied in this article are the GP for adults and the outpatient pediatricians for children. Hence the second strength bears an important relevance.</p> |
| <p>COMMENT In this section please write you own idea. (Even if it is not mentioned in the article)</p> | |
| <p>1. What are the dependent variable(s) of the study?</p> | <p><u>The reported prevalence of non-COVID-19 infectious diseases</u></p> |
| <p>2. What are independent variable(s) of the study?</p> | <p><u>Rate of consciousness about infectious diseases and hygiene</u> (which were heavily influenced by COVID-19 pandemic)</p> |