

# **Towards profiling the rehabilitation of post-COVID-19 patients based on the analysis of depressive and anxiety symptoms using machine learning method**

## **Abstract**

Post-COVID-19 condition is associated with a range of neuropsychiatric symptoms that are often overlooked in current rehabilitation programs. This study aims to show that machine learning methods can predict the mental state of patients, specifically depressive and anxiety symptoms, based solely on a therapeutic program that focuses on enhancing physical fitness and pulmonary function. The study group includes a randomized sample of 329 patients from over 3000 post-COVID19 patients who qualified for an in hospital rehabilitation program and were treated between September 2020 and December 2022 in the Specialist Hospital of St. John Paul II in Głuchołazy.