

## Evaluation of Health Risk Factors in OECD Countries using Cluster Analysis\*

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ARTICLE INFO	ABSTRACT
<p><b>Article Type:</b> Research Article</p> <p><b>Keywords:</b> Cluster Analysis, OECD Countries, Health Risk Factors</p> <p><b>Corresponding Author(s)</b> <sup>1</sup> Şeyma Yenioğlu <sup>2</sup> Gülbiye Yenimahalleli Yaşar</p> <p><b>E-mail:</b> <sup>1</sup> seymayenioglu1@trakya.edu.tr <sup>2</sup> gulbiyey@gmail.com</p> <p><b>Article Application Date:</b> 25.02.2024</p> <p><b>Article Acceptance Date:</b> 29.03.2024</p>	<p><i>Throughout their lives, individuals face numerous risks that can negatively impact their health. Human health is influenced not only by biological factors but also by a wide range of behavioral, environmental, social, and socioeconomic determinants. These factors, which increase the likelihood of diseases and injuries, are among the leading causes of the most significant global health issues and mortality. Understanding and addressing these underlying determinants is essential for preventing diseases and injuries. This study aims to classify 35 member countries of the Organisation for Economic Co-operation and Development (OECD) into similar clusters based on health risk factors and to identify the countries most similar to Turkey. The variables used to evaluate countries according to health risk factors include tobacco use, alcohol consumption, obesity, daily fruit consumption, daily vegetable consumption, exposure to air pollution, out-of-pocket health expenditures, unemployment, low educational attainment, and private health expenditures. The study employs cluster analysis to evaluate ten distinct health risk factors for 35 OECD countries using 2020 data. Initially, a separate cluster analysis was conducted for each risk factor, grouping countries into three clusters. Subsequently, a comprehensive cluster analysis was performed using all risk factors, resulting in the classification of countries into four clusters based on their similarities. Turkey was found to share the greatest similarity in health risk factors with Italy, Portugal, Spain, and Mexico. However, the findings revealed that Turkey belongs to the cluster with the highest health risk levels among the OECD countries.</i></p> <p>* This study is derived from Şeyma Yenioğlu's Master's thesis with the same title conducted at Ankara University, Institute of Health Sciences, Department of Health Management under the supervision of Prof. Dr. Gülbiye Yenimahalleli Yaşar.</p>