

Review of: "The Pandora Box from 12 Countries: Who Benefits More from Modern Interventions?"

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Potential competing interests: No potential competing interests to declare.

This longitudinal prospective study, which successfully analyzes the temporal changes in cardiovascular failure mortality and associated risk factors, is a significant contribution to the understanding of the impact of life-extending and life-saving interventions in 12 countries over the European Neighborhood. It underscores the importance of renal disease as a comorbidity and smoking as a risk behavior in significantly increasing the risk of death by circulatory failure. As a relevant topic in public health, this paper has the potential to support data-driven decisions in both global and community health policies. I would happily recommend it with minor revisions:

- The **Title** is original and engaging but could better reflect the study if it indicated that a group of countries studied belongs to the European Neighborhood.
- The **Introduction** is well-structured and pertinent to the theme, demonstrating scientific writing skills, engaging the reader, and setting the tone for the rest of the text. To further introduce the topic, consider the following:
 - Defining "circulatory failure" and its citation when first mentioned. Perhaps, the code M40.Z of the 11th International Code of Diseases (ICD-11) indexes the terms "acute circulatory failure", "circulatory collapse", "circulatory shock", and "circulation failure" as per the 11th International Code of Diseases (ICD-11).
 - Splitting the second paragraph into two. The new paragraph could start with "The presence of comorbidities..."
 - The aims can be more concise. For example, "Thus, this longitudinal prospective study aims to analyze the temporal changes in cardiovascular failure mortality and associated risk factors to understand the impact of life-extending and life-saving interventions."
 - To enhance the understanding of the study, the Introduction should be followed by the methods and materials used.
- The **Methods and Materials** section adequately explains the Survey of Health, Ageing and Retirement in Europe (SHARE) study comprehensively, as well as the approach of the multivariate analysis of the time-varying Cox and Cox-frailty regression models. However, to make this section more concise, it would be better to focus on technical descriptions and avoid referencing figures and tables containing Results. Perhaps consider the following:
 - Creating a table specifying the comorbidity categories that lead to circulatory failure included in this study based on ICD-11 and an explanatory figure of the methods without results.

The **Results** and **Discussion** are excellently written, with well-organized and presented results. The topic of discussion is also well-inferred and appropriately cited. However, the limitations section of each paper should include a discussion of

the similarities and divergences between the 12 countries studied, particularly Israel, which is the only non-European country included in the analysis.

The **Conclusion**, an original and insightful piece, reiterates the main findings of the research. It connects the primary discoveries and outcomes, contextualizes them with the research framework, and suggests practical solutions to overcome the challenges of the public health topic studied. This reiteration of the main findings will reinforce the key takeaways of the research and leave a lasting impression on the reader.