

Multiple Sclerosis during COVID-19 and Occupational Hazards

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INTRODUCTION & AIM

The occupational hazards and multiple sclerosis during the COVID-19 pandemic reveal a multifaceted interplay between mental health, work-related challenges, and the unique experiences of individuals with multiple sclerosis. The initial research highlights the significant work-related outcomes of healthcare workers with multiple sclerosis.

METHOD

A secondary meta-analysis study was conducted to provide a comprehensive examination of the current state of research regarding the occupational outcomes for individuals with multiple sclerosis.

CONCLUSION

The findings point to the necessity of organizational interventions, such as the provision of mitigation for these adverse effects, and underscore the significance of workplace policies in promoting mental well-being during crises. The evolving landscape of work-related issues in the context of chronic illness necessitates a nuanced understanding of how external factors, such as a global health crisis, can shape the experiences of affected individuals. There is a clear need for targeted interventions and further research.

FUTURE WORK

This study emphasizes the economic burden of multiple sclerosis on public health and the necessity for further research into the bio-psychosocial factors influencing work disability and potential protective elements that could enhance occupational outcomes.

RESULTS & DISCUSSION

The study found that only 23% of participants experienced a relapse during the COVID-19 pandemic. Yet, more than half reported an increase in the frequency or severity of multiple sclerosis adverse effects, which were exacerbated by the occupational hazards during the COVID-19 pandemic's stressors. The correlation between increased chronic symptoms and higher perceived stress levels further emphasizes the psychological dimensions of living with multiple sclerosis during such a stressful period. This highlights the significant gaps in the literature, specifically noting the scarcity of longitudinal and interventional studies that could offer deeper insights into how occupational outcomes for multiple sclerosis have evolved and may have been exacerbated for this vulnerable population. The existing literature is limited in scope and lacks clear definitions regarding occupational outcomes, complicating the interpretation of findings.

REFERENCES

- Adamopoulos, I. P., Syrou, N. F., Lamnisis, D., Valamontes, A., Karantonis, J. T., Tsirkas, P., & Dounias, G. (2026). Classifying and mitigating occupational risks for public health inspectors in the context of the global climate crisis. *European Journal of Sustainable Development Research*, 10(1), em0336. <https://doi.org/10.29333/ejosdr/17273>.
- Adamopoulos, I. P., Valamontes, A., Tsirkas, P., & Dounias, G., (2025). Predicting workplace hazard, stress and burnout among public health inspectors: An AI-driven analysis in the context of climate change. *European Journal of Investigation in Health, Psychology and Education*, 15(5), Article 65. <https://doi.org/10.3390/ejihpe15050065>.
- Adamopoulos, I. P., Syrou, N. F., Lamnisis, D., & Boustras, G. (2023). Cross-sectional nationwide study in occupational safety and health: Inspection of job risks, burnout syndrome, and job satisfaction of public health inspectors during the COVID-19 pandemic in Greece. *Safety Science*, 158, Article 105960. <https://doi.org/10.1016/j.ssci.2022.105960>.
- Adamopoulos, I. P., & Syrou, N. F. (2022). Associations and Correlations of Job Stress, Job Satisfaction and Burnout in Public Health Sector. *European Journal of Environment and Public Health*, 6(2), em0113. <https://doi.org/10.21601/ejeph/12166>.
- Adamopoulos, I. P., Lamnisis, D., Syrou, N. F., & Boustras, G. (2022). Public health and work safety pilot study: Inspection of job risks, burnout syndrome, and job satisfaction of public health inspectors in Greece. *Safety Science*, 147, Article 105592. <https://doi.org/10.1016/j.ssci.2021.105592>.
- Burton, D., & Burton, D. (2000). Secondary data analysis. SAGE. <https://doi.org/10.4135/9780857028051.d34>
- Dale, A., Wathan, J., & Higgins, V. (2008). The secondary analysis of quantitative data sources. In P. Alasuutari, L. Bickman, & J. Brannen (Eds.), *The SAGE handbook of social research methods* (pp. 520-535). SAGE. <https://doi.org/10.4135/9781446212165.n31>.