



Symptoms and Diseases Related to Occupational Health Caused by Climate Change: A Systematic Literature Review

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ABSTRACT

Introduction: One of the duties of occupational health engineers is to maintain and improve the physical health of employees. Climate change can cause various symptoms and diseases in workers. The importance of climate change has led to the slogan of World Occupational Safety and Health Day in 2024 being related to the effects of climate change on occupational health. This study aimed to investigate the symptoms and diseases related to occupational health caused by climate change.

Search Strategy: The protocol of this study was prepared and presented according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines. Relevant keywords between 2000 and 2024 were searched in authoritative academic databases (PubMed, Scopus, Web of Science, ScienceDirect, and Google Scholar) to identify studies. Scientifically valid studies retrieved by two researchers were reviewed based on inclusion and exclusion criteria, and duplicate and irrelevant articles were excluded. Based on the purpose of the study, the necessary information was extracted from the selected articles and analyzed with a descriptive approach.

Results: In this systematic review, 29 eligible studies were examined. Climate change resulted in various symptoms and diseases in workers. Symptoms caused by climate change in workers included heat stress, heatstroke, fatigue, dehydration, headache, thirst, heat rash, collapse, muscle cramps, excessive sweating, visual disturbances, and reduced chemical tolerance. Additionally, based on the results of various studies, climate change affected chronic kidney diseases, skin cancer, cardiovascular dysfunction, and infectious and contagious diseases such as malaria and Lyme. Our results showed the effect of climate change on workers' cardiorespiratory health problems, including asthma, lung cancer, heart attacks, stroke, and other cardiovascular diseases. Furthermore, heat-related death was the most significant consequence of climate change on workers.

Conclusion and Discussion: Climate change causes various symptoms and diseases in workers, negatively affecting their occupational health. Considering the results of the current research and the importance of the subject, occupational health engineers and other individuals related to workers' health should take necessary measures.

Citation:

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