

The Impact of Air Pollution on Older Adults Health while they engage in Physical Activity

Xi Liu*

Department of Blue and Green Development, Shandong University, Weihai 264209, China

Introduction

One of the most significant threats to human health from the environment is air pollution. The principal toxins that current wellbeing gambles are particulate matter (PM), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and carbon monoxide (CO), which have been researched in various conditions, like private kitchens, roadways, squares, parks, and exercise centers. Different groups, including the elderly, frequent these settings. Because these pollutants enter deep into the lungs and bloodstreams, travel through the organs of the human body, and cause severe tissue and cell damage, this population is currently thought to be the most vulnerable to the harmful effects of air pollution.

Description

According to global assessments, air pollution poses a threat from all causes. People who already have chronic conditions like asthma, chronic obstructive pulmonary disease (COPD), and heart disease have the greatest health and mortality impacts among those over 60. Physical activities (PAs) are one healthy practice that can help lower reported disease and mortality rates. However, there is evidence that PA behavior is affected by air pollution, negating some or all of the practice's benefits.

Numerous studies in the literature suggest physical activity for a variety of age groups and patients with a variety of clinical conditions because of its beneficial effects on health. On the other hand, it is common knowledge that physiological changes like increased ventilation and airflow velocity occur when a person engages in physical exertion during physical activity (PA). Because these changes make it harder for the patient's nose to filter the air of any pollutants that are already there, the majority of breathing now takes place through the mouth. This can cause pollutants to travel to the deepest parts of the respiratory system, which can be bad for your health. Several comorbidities, including obesity, hypertension, atherosclerosis, diabetes, cardiovascular diseases, and neurodegenerative diseases, can also be exacerbated by exposure to pollutants in the atmosphere during the natural aging process.

In this sense, a comprehensive review of the extensive existing literature on the effects of air pollution on the health of elderly people during PA is required. Studies with a lot of scientific impact are called mapping reviews. They map and describe research, and they find gaps in the literature in a number of areas. Environmental sciences lack this kind of work, especially when it comes to taking into account the health of older adults during PA practices. Although the adverse health effects of indoor or outdoor air pollution

have been extensively documented and are known to be a major cause of public and environmental health issues worldwide, little information has been provided regarding the effects that air pollutants can have on the health of older adults who engage in physical activity [1-5].

Conclusion

We came to the conclusion that air pollution and poor air quality are harmful factors to the health of older adults practicing PAs on the basis of the current mapping review of 58 studies from four databases to analyze the state of the art on the effects of air pollution on the health of older adults participating in physical activities. During the practice of PA, a significant number of studies demonstrate that air pollution has negative effects on the health of older adults, with a higher prevalence of cardiovascular and respiratory diseases. In contrast, the beneficial effects of PA on mental health outcomes (depression and cognition) in older adults remained even when pollutants were at their highest frequency.

Acknowledgement

None.

Conflict of Interest

None.

References

1. Colebrook, Cyril Frank. "Correspondence. Turbulent flow in pipes, with particular reference to the transition region between the smooth and rough pipe laws. (Includes plates)." *J Inst Civil Eng* 12 (1939): 393-422.
2. Couvelis, F. A. "Apparent losses due to domestic water meter under-registration in South Africa." *Water SA* 41 (2015): 698-704.
3. Criminisi, A., C. M. Fontanazza, G. Freni and G. La Loggia. "Evaluation of the apparent losses caused by water meter under-registration in intermittent water supply." *Water Sci Tech* 60 (2009): 2373-2382.
4. De Marchis, M. "A mathematical model to evaluate apparent losses due to meter under-registration in intermittent water distribution networks." *Water Sci Tech Water Sup* 13 (2013): 914-923.
5. De Marchis, Mauro, Barbara Milici and Gabriele Freni. "Pressure-discharge law of local tanks connected to a water distribution network: Experimental and mathematical results." *Water* 7 (2015): 4701-4723.

*Address for Correspondence: Xi Liu, Department of Blue and Green Development, Shandong University, Weihai 264209, China; E-mail: liuxi@12sdu.edu.cn

Copyright: © 2022 Liu X. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Received: 02 November, 2022; Manuscript No. pollution-23-89669; Editor Assigned: 05 November, 2022; PreQC No. P-89669; Reviewed: 16 November, 2022; QC No. Q-89669; Revised: 21 November, 2022, Manuscript No. R-89669; Published: 30 November, 2022, DOI: 10.37421/2684-4958.2022.5.285

How to cite this article: Liu, Xi. "The Impact of Air Pollution on Older Adults Health while they engage in Physical Activity." *Pollution* 5 (2022): 285.