Efforts to Improve Mental Well-Being Amid Urban Aerosol Exposure

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Abstract

Mental health is a crucial yet frequently overlooked element of community health, especially in heavily populated city settings. This research examines how exposure to urban air pollutants including fine particles and other contaminants affects mental well-being, taking into consideration social and psychological factors. Earlier research, such as studies by Zhang et al. (2020), Chen et al. (2019), and Dadvand et al. (2014), indicates that long-term exposure to contaminated air increases the likelihood of mental health conditions like anxiety, depression, and developmental difficulties in children. A comprehensive review of existing literature was performed, evaluating peer-reviewed research and statistics from international health bodies, including the World Health Organization (WHO). A qualitative synthesis method was used to highlight recurring themes that connect urban air pollution with mental health outcomes.The results show that people living in areas with significant air pollution experience heightened stress, reduced life satisfaction, and increased risk of mental health issues. Being exposed to dirty air can also initiate bodily reactions that may worsen these mental health conditions. Moreover, elements such as limited green areas and lack of social support exacerbate the mental strain caused by air pollution. In summary, improving air quality should be part of mental health initiatives, particularly concerning urban design and public health regulations. Enhancing public awareness and executing focused actions can help mitigate mental health risks associated with urban aerosols. More studies are necessary to deepen understanding of these dynamics and assist in creating efficient, research-backed strategies for tackling urban mental health challenges.

Keywords: Mental Well-Being, Air Pollution, Urban Aerosol, Public Health, Environmental Intervention.