

Exploring the Relationship between Air Pollution and Health of Children: A Global Perspective

Dear Editor,

Air pollution has been regarded as one of the major environmental and public health threats, which accounts for close to 7 million premature deaths worldwide owing to the exposure to both indoor and outdoor air pollution.^[1] Despite being a global problem, the burden of disease is extremely high among low- and middle-income nations and justifies the need that a lot needs to be done to combat the problem.^[1] Further, the available global estimates suggest that outdoor air pollution alone tends to affect the global economy and growth of the nation.^[1,2] Moreover, poverty is an important determinant of the consequences of air pollution, as it tends to limit the access to health care and available information.^[1]

Even though the global leaders and policy-makers have realized the scope of the problem, the issue of the impact of air pollution on children's health has been ignored big time.^[1] In fact, the recent figures revealed that air pollution has a significant and disastrous effect on child health and survival as >90% of them live in regions with air pollution levels way beyond the recommended norms.^[1] It is quite alarming that 10% of the under-5 child deaths are directly or indirectly attributed to environmental risks.^[1] In a randomized controlled trial done in Rwanda with a purpose to assess the role of household air pollution in identifying the health symptoms in children, it was observed that children living in enclosed settings or in households with indoor cooking or near to tree cover had a significant risk of respiratory infection with associated symptoms.^[3] On the contrary, children living in homes with cemented floors or with ventilation holes in the cooking area have minimal risk of developing the similar symptoms.^[3] The findings of another study have indicated that the use of fossil fuels has remarkably affected children's health and in turn even influenced the health and financial outcomes.^[4] In addition, air pollution affects the neurodevelopmental growth (resulting in lower cognition and delayed motor milestones) and lung functions and plays a massive role in the development of cancer and chronic diseases.^[5]

Children are the future of tomorrow's community, but then, they are most vulnerable to the effects of air pollution.^[2] Considering our responsibility to ensure that each child should be able to breathe clean air to enable them to grow to their maximum potential, there is an indispensable need to take immediate measures to reduce the risk posed to their health.^[1,2,5] The World Health Organization has released a recent report suggesting the link between air pollution and adverse effects among children and also emphasized on the need to have a more coordinated response and better involvement of the

health-care professionals to prevent damage to children's health from exposure to air pollution.^[1]

Health-care professionals have a critical role to play and they should be sensitized about the role of air pollution in affecting children's health as this will enable them to recognize the potential disease at the earliest.^[1,5] In fact, health professionals can motivate families to resort to safe modes of cooking and can also sensitize them about the ill effects of air pollution.^[1] Further, they can act as a change agent and transfer their knowledge to other colleagues, local leaders, as well as the policy-makers to motivate them to take corrective measures.^[1] In addition, they can participate in research activities in the arena and disseminate the findings of their studies to generate adequate evidence about the link between air pollution and health of children.^[1] Moreover, the governments should take efforts to implement measures to minimize air pollution, and places such as schools can be targeted to create awareness about the same.^[2,6]

To conclude, air pollution is a global public health concern and it significantly affects the health status of millions of people, including children. However, acknowledging the fact that children are quite vulnerable to the same, it is high time that the health-care professionals and the government should understand their responsibility and work collectively to minimize the burden of the disease.

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Conflicts of interest

There are no conflicts of interest.

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