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**Аннотация.** Здоровье детей дошкольного возраста во многом определяется воздействием различных факторов окружающей среды, которые могут как способствовать укреплению их здоровья, так и повышать риск заболеваний. Дошкольники, вследствие незрелости иммунной системы и высокой восприимчивости к инфекциям, часто страдают заболеваниями дыхательных путей и желудочно-кишечного тракта. Каждый из этих факторов играет важную роль в поддержании здоровья и гармоничного развития детей. Качество воздуха выделяется как один из наиболее значимых детерминант здоровья дошкольников.

**Ключевые слова:** Факторы окружающей среды, дети дошкольного возраста, здоровье, респираторные инфекции, социально-экономический статус, санитария, качество воздуха.

**Annotation.** The health of young children, particularly those attending preschool, is profoundly influenced by various environmental factors that can significantly contribute to their well-being or ill health. Preschool-aged children, due to their still-developing immune systems and high susceptibility to infections, frequently encounter illnesses such as respiratory infections and gastroenteritis. Each factor plays a critical role in either supporting or hindering children's health and development. Air quality emerges as a significant determinant of health in preschool children.

**Keywords:** Environmental factors, preschool children, health, respiratory infections, socio-economic status, sanitation, air quality.

**Introduction.** Preschool children are particularly susceptible to infectious diseases due to several factors, including their developing immune systems, close contact with peers, and the environments in which they spend their time. Frequent illnesses can lead to significant health care costs, and more importantly, hinder educational and developmental outcomes. The increasing burden of childhood illnesses prompts an investigation into environmental factors that may contribute to this phenomenon. Understanding how these factors interplay can inform more effective interventions for enhancing the health of preschool-aged children.

**Relevance.** The relevance of this investigation into the environmental factors affecting the health of frequently ill preschool children cannot be overstated, particularly in light of the increasing enrollment rates in preschool programs worldwide. With more children attending preschool than ever before, understanding the challenges that these environments pose to children's health has become a pressing public health concern. As children aged three to five spend a significant part of their day in preschools, the health implications of their surroundings warrant a closer examination.

In recent years, there has been a documented rise in the prevalence of childhood illnesses, particularly in urban settings where environmental challenges are often amplified. Conditions such as asthma, allergies, respiratory infections, and gastroenteritis have been identified as common ailments among preschool children. Factors such as air pollution, inadequate sanitation, and socio-economic disparities play a crucial role in exacerbating these health issues. Research indicates that chil-

dren exposed to high levels of air pollution are at greater risk for respiratory illnesses, which can result in chronic health conditions that impact not only their physical well-being but also their cognitive development and educational outcomes.

Consequently, these socio-economic factors can perpetuate a cycle of poor health outcomes that extend into adulthood, highlighting the need

### Materials and Methods

This study conducted a comprehensive literature review, synthesizing findings from existing research on environmental factors affecting preschool children. Articles were sourced from research journals focusing on pediatric health, environmental science, and public health. Key search terms included "environmental health preschool children," "air quality and childhood disease," "socio-economic factors preschool health," and "sanitation and child health." The inclusion criteria focused on peer-reviewed studies published in the last 15 years, emphasizing empirical research on health outcomes in preschool children.

**Results.** Air Quality. Air quality is a pressing environmental concern with far-reaching implications for public health, especially among vulnerable populations like preschool children. Numerous studies have established a strong correlation between exposure to various air pollutants and the incidence of respiratory illnesses in children. Research conducted by Chuang et al. (2021) highlights that pollutants such as particulate matter (PM), nitrogen dioxide (NO<sub>2</sub>), and volatile organic compounds (VOCs) significantly elevate the risk of hospitalizations for conditions like asthma and respiratory infections.

In urban areas, children are particularly susceptible to poor air quality due to the high density of vehicles, industrial activities, and construction sites, which contribute to elevated levels of these harmful substances. The developing respiratory systems of children expose them to a multiplicative effect of these pollutants, often leading to chronic conditions and exacerbating acute health issues. It is noteworthy that childhood asthma, a common result of such exposure, not only results in physical discomfort but also affects educational performance and overall quality of life. Thus, the urgency to address air quality issues in urban preschools cannot be understated. Consistent monitoring and implementing effective policies aimed at reducing emissions and enhancing air quality can substantially benefit children's health outcomes.

**Sanitation.** Sanitation is another critical factor influencing the health of preschoolers, particularly concerning the prevalence of gastrointestinal infections. Inadequate sanitation facilities in educational settings create fertile ground for the spread of pathogens that cause illnesses such as diarrhea, which can severely impact children's health and attendance at school. Studies, including those by Luby et al. (2019), illustrate a clear link between sanitation standards in preschools and the rates of infectious diseases among children. Facilities that are clean, well-maintained, and equipped with proper hygiene resources, such as handwashing stations, drastically lower the risks of disease transmission.

Additionally, it is essential to understand that the health burden stemming from inadequate sanitation extends beyond the immediate effects of illness; they can have lasting consequences on children's development and educational trajectories. Frequent illnesses due to poor sanitation can lead to increased absenteeism from preschool, hindering social interactions and learning opportunities, placing these children at a developmental disadvantage.

**Socio-Economic Status.** Socio-economic status (SES) serves as a critical lens through which to examine disparities in health outcomes among preschool children. Research by Gonzalez et al. (2020) emphasizes that children from lower socio-economic backgrounds are disproportionately exposed to a myriad of environmental hazards, including substandard living conditions, limited healthcare access, and inadequate nutrition. These factors collectively contribute to higher rates of illnesses in this demographic. Children living in poverty often inhabit neighborhoods with environmental risks such as pollution, limited access to recreational areas, and inadequate public services. The stressors associated with low SES can manifest as both mental and physical health challenges, further complicating the health landscape for these children.

**Educational Environment.** The quality of the educational environment significantly affects the health and well-being of preschool children. Factors such as class size, teacher-to-student ratios, and the availability of educational resources directly impact both learning outcomes and health metrics. Research conducted by Murray (2021) indicates that preschools that prioritize health education and promote hygiene practices typical-

ly record lower rates of communicable diseases among their students.

Furthermore, preschools that nurture a supportive environment—characterized by adequate staffing, access to health resources, and educational materials—can better address the holistic needs of children. The promotion of health literacy within these settings empowers children to adopt and maintain healthy practices, thus enhancing their overall well-being.

**Conclusion.** In conclusion, the health status of preschool children is intricately woven with various environmental factors, including air quality, sanitation, socio-economic status, and educational environments. Each of these elements contributes not only to the prevalence of illnesses but also to the overarching developmental trajectories of young children. To mitigate these adverse health outcomes, a multi-faceted approach is imperative. Policymakers must prioritize initiatives aimed at improving air quality, thereby reducing exposure to harmful pollutants. Enhancing sanitation facilities in preschools is equally critical; implementing rigorous hygiene standards will help curb the spread of infectious diseases. Addressing socio-economic disparities is essential for providing equal access to healthcare and nutritional resources, enabling every child to thrive regardless of their background.

Moreover, investing in quality educational environments that embed health education can empower children with lifelong skills for maintaining their health. Future research should focus on assessing the long-term impacts of these interventions, ensuring they effectively serve the most vulnerable populations.

By acknowledging and acting upon the interconnectedness of these environmental factors, we can forge a path toward healthier preschool environments, safeguarding the well-being of our children and fostering prosperous communities for generations to come. The holistic health of our youngest citizens is not merely a marker of societal progress; it must be a fundamental priority for all stakeholders involved—parents, educators, healthcare providers, and policymakers alike.

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**Annotatsiya.** Maktabgacha yoshdagi bolalar salomatligi ko'p jihatdan atrof-muhit omillariga bog'liq bo'lib, bu omillar ularning sog'lom o'sishi yoki tez-tez kasallanishiga sezilarli ta'sir ko'rsatadi. Bolalarda immun tizimi to'liq shakllanmaganligi sababli, ular nafas yo'llari infeksiyalari va oshqozon-ichak kasalliklariga moyil bo'ladi. Har bir omil bolalarning sog'lom rivojlanishida muhim ahamiyatga ega. Ayniqsa, havo sifati bolalar sog'lig'ining asosiy belgilovchi omillaridan biri sifatida ajralib turadi.

**Kalit so'zlar:** Atrof-muhit omillari, maktabgacha yoshdagi bolalar, sog'liq, nafas olish yo'llari infeksiyalari, ijtimoiy-iqtisodiy holat, sanitariya, havo sifati.

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