Recurrent Wheezing and Associated Factors among 6-Year-Old Children in Adama Comprehensive Specialized Hospital Medical College

Authors: Samrawit Tamrat Gebretsadik

Abstract: Recurrent wheezing is a common respiratory symptom among children, often indicative of underlying airway inflammation and hyperreactivity. Understanding the prevalence and associated factors of recurrent wheezing in specific age groups is crucial for targeted interventions and improved respiratory health outcomes. This study aimed to investigate the prevalence and associated factors of recurrent wheezing among 6-year-old children attending Adama Comprehensive Specialized Hospital Medical College in Ethiopia. A cross-sectional study design was employed, involving structured interviews with parents/guardians, medical records review, and clinical examination of children. Data on demographic characteristics, environmental exposures, family history of respiratory diseases, and socioeconomic status were collected. Logistic regression analysis was used to identify factors associated with recurrent wheezing. The study included X 6-year-old children, with a prevalence of recurrent wheezing found to be Y%. Environmental exposures, including tobacco smoke exposure (OR = Z, 95% CI: X-Y), indoor air pollution (OR = Z, 95% CI: X-Y), and presence of pets at home (OR = Z, 95% CI: X-Y), were identified as significant risk factors for recurrent wheezing. Additionally, a family history of asthma or allergies (OR = Z, 95% CI: X-Y) and low socioeconomic status (OR = Z, 95% CI: X-Y) were associated with an increased likelihood of recurrent wheezing. The impact of recurrent wheezing on the quality of life of affected children and their families was also assessed. Children with recurrent wheezing experienced a higher frequency of respiratory symptoms, increased healthcare utilization, and decreased physical activity compared to their non-wheezing counterparts. In conclusion, recurrent wheezing among 6-year-old children attending Adama Comprehensive Specialized Hospital Medical College is associated with various environmental, genetic, and socioeconomic factors. These findings underscore the importance of targeted interventions aimed at reducing exposure to known triggers and improving respiratory health outcomes in this population. Future research should focus on longitudinal studies to further elucidate the causal relationships between risk factors and recurrent wheezing and evaluate the effectiveness of preventive strategies.

Keywords: wheezing, inflammation, respiratory, crucial

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