The Social Aspect of Children and Adolescents with Chronic Respiratory Diseases

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Chronic respiratory diseases (CRDs) are common among children and adolescents. Asthma and cystic fibrosis are two main conditions that affect this population. Young patients face physical limitations due to structural and functional abnormalities of the airways and other lung structures. Moreover, the route of everyday life is influenced by responsibilities derived from treatments, and exacerbations imposed by the disease impacting silently their social life. To date, discussions in the literature have mostly focused on the physical limitations that face children and adolescents. On the contrary, social aspects are less investigated, even their important role in rehabilitation patterns. On this basis, we provide an overview of the social determinants that affect children and adolescents with CRDs in different social environments, such as family and school; discuss coping strategies that can be developed to attenuate the impact of CRDs on youngsters' lives; and present the role of healthcare professionals and digital technology in social support.

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Chronic respiratory diseases in children and adolescents (CRDs) describe a range of clinical disorders involving structural and functional abnormalities of the airways and other lung structures. The global prevalence rate of asthma, the most common among children and adolescents, is estimated at 4.758 per 100,000 cases [1]. Cystic fibrosis (CF), primary ciliary dyskinesia (PCD), protracted bacterial bronchitis (PBB), and bronchiectasis are categorized under the umbrella of chronic suppurative lung diseases (CSLDs). These chronic respiratory diseases are characterized by chronic endobronchial bacterial infection and chronic productive cough [2]. The prevalence of CSLDs in European populations ranges from 0.2 to 2.3 per 100,000 cases, while in non-European populations, it ranges from 13.3 to 15 per 100,000 [3].

CRDs significantly impact airway and lung function, leading to various respiratory symptoms and complications. Chronic airway inflammation and mucus hypersecretion lead to narrowing and obstruction of the airways [4], while impaired mucociliary clearance results in recurrent respiratory infections and progressive lung function decline [5]. Similarly to adults, children and adolescents with CRDs face extrapulmonary traits, such as nutritional deficiencies and BMI abnormalities, low physical activity, psychological and social implications.

Nutritional deficiencies and growth impairments usually appear in these populations due to malabsorption, insufficient micronutrients, and limited nutrient intake [6]. In children with bronchiectasis, these factors, combined with increased energy requirements, lead to BMI abnormalities. Furthermore, a more declined lung function (Forced Expiratory Volume in 1st second, FEV_1 < 80% predicted) seems to relate to a lower BMI, while a better lung function seems to correlate to a higher BMI [7].

In addition, the BMI correlates with physical activity and sedentary time. It appears that children with CF who are less active and spend more time on sedentary activities present lower BMI and worse lung function compared to those who are more active [8]. Disease severity also correlates with participation in physical activities. Children and adolescents with moderate asthma seem to participate less in physical activities than those with mild asthma, as exercise may trigger their symptoms [9].

Apart from physical health, these conditions may have profound social implications. Social burden can be reported as a result of impaired health-related quality of life (HRQoL). Children and adolescents with CRDs, mainly those with CF, reported impaired HRQoL, specifically on subscales that referred to psychosocial health and emotional functioning [10]. Children are facing difficulties in keeping up with their peers due to physical impairments, making them inactive and socially isolated [11]. From parents' perspectives, therapeutic interventions that involve family members and friends can benefit children, improving their physical activity and social interaction and making therapy enjoyable [12].

To date, there is limited data investigating interventions on the psychological and social spectrum of this population's needs. In response to these considerations, in this entry, we provide an overview of the social determinants that affect children and adolescents with CRDs, especially in the school and community settings. Furthermore, we aimed to present practical coping strategies, supported by the literature, that can be implemented to mitigate the impact of CRDs on children's lives, as well as the role of healthcare professionals (HCPs) and digital technology in their social support.

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