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Allergy Frontiers: Epigenetics, Allergens and Risk Factors

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Socioeconomic Status and Asthma in Children

Edith Chen and Hannah M.C. Schreier

Socioeconomic Status and Asthma in Children

Social factors have long been suggested to contribute to childhood asthma, and recently research has begun to provide some intriguing empirical evidence to support this hypothesis. Characteristics of a child's larger social environment, including neighborhoods with high levels of violence, occurrences of acute and chronic stress, and negative family environments have all been linked to asthma onset or morbidity in children [1–3]. These findings suggest that in addition to traditional risk factors such as genetics and environmental exposures, the social environment maybe an important component to a fuller understanding of asthma pathogenesis. For a graphical representation of how social contributors interact to shape asthma, see Fig. 1.

One broad social environment factor that maybe important to childhood asthma is socioeconomic status (SES). SES refers to a family's position within a larger social hierarchy, and can be defined in terms of prestige (e.g., parent's education or occupation) as well as resources (e.g., family income or assets) [4]. Across all social factors, SES exhibits one of the most robust and consistent associations with physical health outcomes. Individuals from lower SES families have poorer health than individuals from higher SES families. This relationship holds true across a variety of diseases, across many different countries, and throughout the life span [5, 6]. Despite this striking pattern, the relationship of SES with childhood asthma remains unclear. Asthma is one of the few diseases for which evidence of a reverse gradient (higher SES being associated with greater disease prevalence) has been presented. Thus the aims of the present chapter are to review evidence regarding the direction of association of SES with childhood asthma and to discuss plausible pathways between SES and asthma.

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