

SOCIAL INEQUALITIES IN CHILDREN'S ENVIRONMENTAL QUALITY: THE IMPACT OF INDIVIDUAL SOCIAL CHARACTERISTICS AND FACTORS OF THE NEIGHBOURHOOD SOCIOECONOMIC CONTEXT

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Background: Social disparities in housing conditions and environmental exposures have increasingly been recognized as major contributing factor for health inequalities.

Aim: To simultaneously assess the impact of individual and neighbourhood socioeconomic factors on children's environmental quality.

Methods: Data on perceived exposures to air pollution and noise, impairment due to lack of access to green space, and socioeconomic position were collected by self-administered questionnaires during three consecutive cross-sectional surveys 2004-2007 in the city of Munich, Germany. In total, the study population comprised 3700 children aged 5-6 years living in 19 school districts. Data on neighbourhood socioeconomic factors of the resident population of these school districts were obtained from Munich's statistical office. Adverse environmental quality was defined as parental report of at least 2 out of the 3 items moderate to very strong impairment due to air pollution, noise, or lack of access to green space in the residential environment. Multilevel analysis was applied to analyse the association of individual (level 1) and neighbourhood socioeconomic factors (level 2) with adverse environmental quality.

Results: Bivariate analyses yielded significant relations between individual indicators of low socioeconomic position (parental unemployment, low household income, low parental education, single-parent family, foreign nationality) as well as contextual socioeconomic characteristics of socially disadvantaged residents (high percentage of low-income households, low education) and adverse environmental quality. In multilevel analyses, among the individual indicators only household income was associated with children's adverse environmental quality (low income: OR 1.71, 95% CI 1.23-2.39). Even controlled for the individual characteristics high percentages of low income households in the neighbourhood (OR 2.50, 95% CI 1.24-5.05) and of single parent families (OR 0.39, 95% CI 0.19-0.78) were related to adverse environmental quality.

Conclusions: Parent's perceived adverse residential environmental quality of children is associated with small-area socioeconomic characteristics of the residential population independently of individual socioeconomic position.