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Socioeconomic Disadvantage in Childhood and Later Risk of Schizophrenia and Other Psychoses

National Register-Based Studies

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ABSTRACT

Aim: The aim of this thesis was to analyse the association between various types of indicators of socioeconomic disadvantage in childhood and the risk of later developing schizophrenia and other psychoses. Furthermore, the importance of socioeconomic disadvantage was explored in relation to immigration, school performance, and an indicator of genetic liability for psychosis.

Methods: The study populations were based on register linkages of several Swedish registers. They were identified in the Multi-Generation Register and were followed in the National Patient Register regarding admissions for schizophrenia and other psychoses. Exposure of up to seven different indicators of childhood socioeconomic disadvantage (housing, single-parent household, parental socioeconomic classification, parental employment, households receiving social welfare benefits, parental early retirement, and parental education) was obtained via linkage to the national Population and Housing Censuses performed every 5 years between 1960 and 1990, and the Income and Taxation Registers. School performance data was obtained via the School Register. Hazard Ratios were estimated by multivariate Cox proportional hazard models.

Results: Five of seven indicators of childhood socioeconomic disadvantage were associated with later risk of schizophrenia and other psychoses (fully adjusted HRs from 1.2 to 1.7) (study I-IV). The risks increased with increasing number of exposures to the different indicators of socioeconomic disadvantage (study I, IV). First and second generation immigrants had increased risks for schizophrenia and other psychoses (HRs 1.4-3.1 and 1.0-2.0 respectively), compared with the Swedish majority population. These risks decreased considerably after adjusting for indicators of socioeconomic disadvantage (study II). In an adoption design (study III) both indicators of genetic liability (HR=4.7) and disadvantaged socioeconomic position (HRs 1.2-2.0) were independently associated with an increased risk for non-affective psychosis. The risk was considerably higher among adoptees exposed to both types of indicators (HRs from 5.7 to 15.0). Synergy indexes were larger than 1 (3.2, 2.6, 1.2). In study IV, risks were increased for schizophrenia (HR=1.9), other non-affective psychoses (HR=3.0), and affective psychoses (HR=2.3) in association with poor average grade, compared with those with a midrange average grade at graduation from compulsory school. Adjustments for socioeconomic position of the family reduced these estimates marginally (schizophrenia: HR=1.7, other non-affective psychoses: HR=2.8, affective psychoses: HR=2.1).

Conclusion: The results indicate that socioeconomic disadvantage during childhood or foetal life contributes to the risk of developing schizophrenia and other psychoses. Furthermore, this risk may even be relatively higher in individuals with a genetic liability for psychosis. Thus, influencing the social situation in childhood may have beneficial effects on the occurrence of psychosis. Socioeconomic disadvantage may also contribute to the increased risk of psychoses in immigrants. However, childhood socioeconomic disadvantage did not substantially affect the risk of psychoses associated with low school performance. In summary, there is support for social disadvantage in the aetiology of psychosis. This knowledge may open up for preventive methods on a societal level, perhaps targeting vulnerable groups such as immigrants and individuals with genetic liability.

Key words: Schizophrenia, psychoses, socioeconomic position, socioeconomic disadvantage, social factors, immigration.

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