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Individual and neighbourhood socioeconomic inequalities in cognitive impairment: cross-sectional findings from the French CONSTANCES cohort

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ABSTRACT

OBJECTIVES - Despite the recent awareness of the environment impact on brain ageing, the influence of the neighbourhood socioeconomic status on cognitive impairment remains unclear. Here, we investigated the effects of individual and neighbourhood deprivation on cognitive impairment in middle-aged and young-old people. DESIGN - Cross-sectional study. SETTINGS - 21 Health Screening Centres in the entire French metropolitan territory. PARTICIPANTS - A total of 44 648 participants (age range: 45 to 69 years) from the French CONSTANCES cohort were included in the analyses. MAIN OUTCOMES - Associations between the overall cognitive score (based on a standardised battery of cognitive tests administered by neuropsychologists) and individual deprivation (Evaluation of Deprivation and Inequalities in Health Screening Centres; EPICES score) and geographical deprivation (French Deprivation Index; FDep index). RESULTS - Based on the EPICES score (validated cut-off ≥30.17), 12% of participants were considered to be deprived. After mutual adjustment, individual and geographical deprivation were associated with higher cognitive impairment in a multilevel logistic regression analysis that was also adjusted for sociodemographic, lifestyle and health factors. Specifically, individual deprivation was associated with an odds increase of 55% (OR=1.55, 95% CI: 1.45 to 1.66). The risk of global cognitive impairment progressively increased with the neighbourhood deprivation level, evaluated by the FDep index (reference Q1; Q2: OR=1.09, 95% CI: 0.98 to 1.20; Q3: OR=1.15, 95% CI: 1.04 to 1.27; Q4: OR=1.15, 95% CI: 1.04 to 1.28; Q5: OR=1.25, 95% CI: 1.13 to 1.39). CONCLUSION - Our results suggest that the neighbourhood socioeconomic deprivation level is associated with cognitive impairment, independently of the individual deprivation level. A better understanding of this association could help to define new prevention strategies to target high-risk residents and high-risk geographical areas in order to reduce social health inequalities.

KEYWORDS: -