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INVESTIGATING GEOGRAPHICAL INEQUALITIES IN LOW-INCOME PENSIONERS' MENTAL WELLBEING AFTER AN INCREASE IN PENSION PAYMENTS: LONGITUDINAL ANALYSIS IN ENGLAND, 1998–2002

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Background In 1997 approximately two million people aged 60 years or over were experiencing poverty in the UK. As part of a broader programme of action to combat pensioner poverty, the UK Government raised real pension incomes of low-income pensioners by around a third through the introduction in 1999 of the Minimum Income Guarantee (MIG). This study explores the implications for pensioners' mental wellbeing of this increase and its potential effect on geographical health inequalities in England.

Methods We explore mental wellbeing outcomes of men and women of state pension age (65 years or above and 60 years or above, respectively) from scores on the General Health Questionnaire (GHQ-12) collected as part of the British Household Panel Survey. We use a panel difference-in-difference estimation procedure. We compare the mental wellbeing of pensioners receiving MIG to that of low-income pensioners (household income below 60% of median incomes) not claiming MIG, from 1998 (pre-reform) to 2002 (three years post-reform). To investigate geographical inequalities we use quartiles of the of the average, extent and concentration distributions of the local-authority-level English Index of Multiple Deprivation. Models controlled for age category, marital status and survey year.

Results The analysis sample consisted of 703 and 1,273 person-year observations for men and women, respectively. Between 1998 and 2002, 135 (38%) of women and 55 (28%) of men in the sample were claiming MIG at any one time. We found an improvement in the mental wellbeing of men living in the most deprived areas, with a decrease of the GHQ-12 score of 3.33 points (95% CI: -6.92, -0.74). This estimate was similar across all measures of local authority deprivation. No other significant results were found, large standard errors possibly accounting for the null findings.

Conclusion This study provides initial evidence that an increase in pension income for low income pensioners can contribute to the reduction of health inequalities, especially for men. This needs to be considered in the terms of future state pension policies.

OP60

THE ROLE OF GENETIC PROPENSITY FOR PSYCHOLOGICAL AND NEUROLOGICAL TRAITS ON SOCIAL CONNECTIONS AND LEISURE ENGAGEMENT: EVIDENCE FROM THE ENGLISH LONGITUDINAL STUDY OF AGING (ELSA)

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Background The interplay between social connections, leisure engagement and health is well investigated, highlighting how social connections and leisure engagement affect health outcomes; and reciprocally, how these health factors predict

leisure engagement and aspects of our social connections. However, there remains a gap in our understanding of how genetic propensity for psychological and neurological traits may also influence leisure engagement and social connections. This is important for research, as an individual's genetic propensity might not only influence health outcomes but also influence the social factors that are known to benefit health outcomes too.

Methods In this study, we utilised the English Longitudinal Study of Ageing (ELSA), which is a large nationally representative sample of the English population aged ≥ 50 years. Polygenic propensity was measured using a polygenic score (PGS) approach. Eight independent exposure-wide regression analyses were run for social connection outcomes (loneliness, relationship strain, social support and contact with social network), and leisure engagement (group membership, volunteering, cultural engagement and hobbies). Fourteen PGSs for psychological traits (e.g., depression and neuroticism) and neurological traits (e.g., ADHD), were used as predictors, and each PGS was run independently within each exposure-wide analysis. Analyses adjusted for age, age², sex, and 10 principal components accounting for ancestry; Bonferroni correction was applied due to multiple testing. To aid interpretability, each PGS was standardized to a mean of 0 (standard deviation (SD) of 1).

Results A one SD increase in depression-PGS was associated with both higher loneliness ($B=0.10$, 95%CI=0.06–0.14, $p<0.001$) and relationship strain ($B=0.09$, 95%CI=0.05–0.13, $p<0.001$), as well as lower odds of group membership (OR=0.91, 95%CI=0.87–0.96, $p<0.001$) and cultural engagement (OR=0.93, 95%CI=0.88–0.97, $p=0.003$). A one SD increase in neuroticism-PGS was also associated with higher loneliness ($B=0.08$, 95%CI=0.04–0.12, $p<0.001$) and greater relationship strain ($B=0.10$, 95%CI=0.06–0.14, $p<0.001$), as well as lower odds of volunteering (OR=0.92, 95%CI=0.87–0.97, $p<0.001$). Lastly, a one SD increase in ADHD-PGS was associated with lower odds of group membership (OR=0.87, 95%CI=0.82–0.91, $p<0.001$), volunteering (OR=0.90, 95%CI=0.85–0.95, $p<0.001$), and cultural engagement (OR=0.88, 95%CI=0.84–0.93, $p<0.001$).

Conclusion Results indicate that an individual's polygenic propensity for depression, neuroticism and ADHD predict their social connections and leisure engagement, thus highlighting that common genetic markers for major mental and neurological health outcomes influence social connections and leisure engagement, potentially indicating a shared genetic overlap between them. Overall, this highlights the importance of considering the role of genetic influence when looking at the interplay between social connections, leisure engagement and health in future research.

Friday 17 September

COVID Carers & Mental Health, 13.00 – 15.30

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ABSTRACT WITHDRAWN