

OP59

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

Viviana Albani*, Heather Brown, Clare Bambra. *Population Health Sciences Institute, Newcastle University, Newcastle upon Tyne, UK*

10.1136/jech-2021-SSMabstracts.59

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)

¹Saoirse Finn*, ¹Daisy Fancourt, ^{1,2}Olesya Ajnakina, ¹Feifei Bu, ¹Andrew Steptoe.

¹Department of Behavioural Science and Health, University College London, London, UK;

²Department of Biostatistics and Health Informatics, King's College London, London, UK

10.1136/jech-2021-SSMabstracts.60

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

OP61

ABSTRACT WITHDRAWN

receipt and care-provision by the older population as maintaining these activities could be challenging with travel restrictions and recommended physical distancing. This study aimed to determine if prevalence of informal caring changed during the COVID-19 pandemic, and examine longitudinal trends in quality of life, stress, and depressive symptoms in carers.

Methods We analysed the COVID-19 self-completion questionnaire (SCQ) sub-study (June–November 2020) of The Irish Longitudinal Study on Ageing (TILDA), a nationally representative study of people aged ≥ 50 years ongoing since 2009. A total of 3,043 participants aged ≥ 60 years were included. Participants were asked if they cared for someone during the COVID-19 pandemic, their relationship to the recipient, and number of hours/week. Outcome measures collected were CES-D8, Perceived stress Scale (PSS) and CASP12. Change in prevalence of caring from previous waves was examined. Multi-level regression analyses examined longitudinal trends in CES-D8, PSS and CASP12 scores by caring status since Wave 3 (2014), adjusting for sociodemographic variables. Analyses were conducted in Stata 14.

Results Prevalence of informal caring tripled during the COVID-19 pandemic (15% compared to 5% in 2018). While 26% of carers reported they had stopped caring since the pandemic, most of those providing care were new carers (68% of men and 66% of women carers). Becoming a new carer during the pandemic was associated with lower CASP12 scores ($\beta = -0.582$, 95% CI $-1.018, -0.146$) and higher PSS ($\beta = 0.541$, 95% CI $0.316, 0.765$) compared to no caring. Caring for ≥ 50 hours in the past week was associated with lower CASP12 ($\beta = -0.878$, 95% CI $-1.345, -0.412$), higher PSS scores ($\beta = 0.383$, 95% CI $0.066, 0.700$) and higher depressive symptoms ($\beta = 0.371$, 95% CI $0.251, 0.490$). This association was moderated by carer status; new carers with increased hours had higher CES-D8 compared to non-carers, with no difference for those who stopped or continued caring.

Discussion This study demonstrated that the reduction of availability of both formal and informal care for older people during the COVID-19 pandemic, led to increased caring by older household members and was associated with lower well-being and mental health. This study provides further evidence of the detrimental indirect effects of the pandemic for older people and emphasizes for policymakers the importance of prioritising formal and informal care arrangements for the older population.

OP62

CARING IN THE TIME OF COVID-19, LONGITUDINAL TRENDS IN WELLBEING AND MENTAL HEALTH IN CARERS IN IRELAND: EVIDENCE FROM THE IRISH LONGITUDINAL STUDY ON AGEING (TILDA)*

¹Christine McGarrigle*, ¹Mark Ward, ¹Aisling O'Halloran, ¹Celine DeLooze, ^{1,2}Rose Anne Kenny. ¹The Irish Longitudinal Study on Ageing (TILDA), Trinity College Dublin, Dublin, Ireland; ²Mercer's Institute for Successful Ageing, St James's hospital, Dublin, Ireland

10.1136/jech-2021-SSMabstracts.62

Background The initial public health response to the COVID-19 pandemic in Ireland recommended that older people aged ≥ 70 years remain at home, and physically isolate from those outside their household. This may have affected both care-

OP63

THE MENTAL HEALTH OF UK WORKERS DURING THE COVID-19 PANDEMIC: A LONGITUDINAL ANALYSIS OF DIFFERENTIAL IMPACTS ACROSS INDUSTRIES AND SOCIAL CLASS CATEGORIES*

¹Theocharis Kromydas*, ¹Michael Green, ¹Peter Graig, ¹Vittal Katikereddi, ¹Alastair Layland, ²Claire Niedzwiedz, ¹Anna Pearce, ¹Rachel Thomson, ¹Evangelia Demou. ¹MRC-CSO Social and Public Health Sciences Unit, Institute of Health and Wellbeing, University of Glasgow, Glasgow, UK; ²Institute of Health and Wellbeing, College of Medical, Veterinary and Life Sciences, University of Glasgow, Glasgow, UK

10.1136/jech-2021-SSMabstracts.63

Background The COVID-19 pandemic has substantially affected mental health but its impacts are likely to differ across industries and social class groups. The 'new normal' in employment opportunities, patterns and conditions is likely to include a degree of fear, uncertainty, employment instability and job loss. It is imperative we identify and understand how