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Background At a time when older adults are encouraged to work through later life, far less is known about why some individuals work beyond state pension age (SPA) and the extent to which the health consequences of pensioners are conditioned by whether the decision to retire or continue working is voluntary or involuntary. This study assessed the effect of work status beyond SPA on the long-term trajectories of cognitive and mental health for men and women separately, and the extent to which this relationship is conditioned by whether or not the choice to retire or continue working is voluntary or involuntary.

Methods Data are pensioners (aged between SPA and SPA+9) from the English Longitudinal Study of Ageing waves 4 (2008/09) through 9 (2018/2019). The analytic sample includes 1064 men and 1302 women for analyzing cognitive outcomes and 1167 men and 1404 women for analyzing depression. Growth curve models were applied.

Results Findings reveal that women who retired for involuntary reasons report a more precipitous decline in memory over time (coefficient for slope = -0.070; 95%CI: -0.137, -0.003). Involuntary retirement is psychologically distressing for men (baseline OR = 3.5), with time this distress lessens (OR for slope = 0.883; 95%CI: 0.781, 0.998); and, voluntary retirement, while not carrying any immediate benefit, translates into lower chances of developing depression over time for men (OR for slope = 0.796; 95%CI: 0.661, 0.959). Lastly, women who stay in work past SPA voluntarily are less likely to report depression at baseline (OR = 0.331; 95%CI: 0.158, 0.693) and the differences in depression across different groups remain the same over time.

Discussion Our findings suggest that health in later life hinges less on whether a person is retired on time or working past SPA and more on the choice surrounding the decision to retire or continue working. Also, the health effect of retirement or extended work life is far from static; in fact, our findings suggest that it is more likely to shift over time. The complexity surrounding retirement demands that we continue to assess the impact of this transition on health within the context of individual characteristics, gender being one of them. Policies that extend working life should consider offering older people more personal control over decision surrounding retirement.

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Background Attention-deficit/hyperactivity disorder (ADHD) can be viewed as the extreme end of heritable traits distributed in the general population. Due to the focus on children in the literature on ADHD and data constraints, to-date, almost no research focused on the relationship between ADHD-related outcomes in older adults from the general population. As ADHD is a highly heritable disorder, high genetic liability for ADHD may influence several important live domains in older adults; however, this question has not been investigated yet.

Methods Using a population representative sample of 6332 individuals aged $\geq$50 with an average age 64.7 years (standard deviation (SD)=9.3, range=50–101) from the English Longitudinal Study of Ageing, we investigated relationships of genetic propensity to ADHD, as measured using polygenic score (PGS-ADHD), with several important life domains, such as occupational and social function, poor health, intimate relationships and cognition, which was measured employing tests for verbal memory and executive function. Information on physical health and socio-economic circumstances were self-reported by the participants; data on sexual activity and function were collected via the Sexual Relationships and Activities Questionnaire.

Results Compared to participants with low PGS-ADHD, older adults with high polygenic predisposition to ADHD were at a greater risk of lower educational attainment (OR=1.29, 95%CI=1.29–1.68, p<0.001) and low accumulated wealth (OR=1.43, 95%CI=1.25–1.62, p<0.00); similar findings were observed in relation to lower verbal fluency score (Coef=-0.62, 95%CI=-1.0- -0.24, p<0.001) and verbal memory score (Coef=-0.37, 95%CI=-0.56- -0.19, p=0.001). Older adults with high PGS-ADHD had a significantly higher likelihood to report poor self-rated health (OR=1.42, 95% CI=1.22–1.64, p<0.001), body mass index $\geq$30 (OR=1.29, 95%CI=1.13–1.48, p<0.001), and the presence of moderate to severe pain (OR=1.42, 95%CI=1.23–1.63, p<0.001). They also had 36% higher odds of reporting a low or infrequent sexual activity in the past year (95%CI=1.16–1.60, p<0.001).

Conclusion This is the first study to show that having a higher polygenic predisposition for ADHD is associated with poorer health, low socioeconomic status, limited sexual activity, and lower cognitive performance in older adults. These results highlight high polygenic risk for ADHD as an important risk factor poor functioning in several important life domains including poor health.

Friday 17 September

Session: Covid Data & Inequalities, 09.00 – 11.30

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