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Presentation title: Life-course persistent antisocial behaviors and accelerated aging in a longitudinal birth cohort

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Individuals exhibiting antisocial behaviors are in generally poorer health in adulthood and die at a younger age than their peers (Skinner et al., 2021; Wertz et al., 2021). Earlier mortality is only partly explained by unnatural causes of death, such as homicide. The bulk of the mortality gap is attributable to deaths from physical disease, and a major driver of these diseases is the process of aging itself. The aim of this study was to investigate the association between antisocial behavior trajectories and signs of accelerated aging by midlife in a prospective, population-based cohort. Participants were 934 members of the Dunedin Study, an ongoing longitudinal study following participants from birth to age 45. Antisocial behavior trajectories were identified through growth-mixture modelling. Signs of accelerated aging (pace of aging, integrity of sensory and motor systems, cognitive functioning, and brain age) were assessed using previously validated measures based on laboratory assessments. We controlled for health, environmental and individual confounders. Full-information maximum likelihood regression analyses were performed to investigate the associations between antisocial trajectories and signs of accelerated aging. Life-course persistent (LCP) offenders presented with a greater decline in physiological, motor and cognitive functioning. Sensitivity analyses revealed that, with the exception of brain age, the associations between LCP antisocial behaviors and signs of accelerated aging were not attributable to health, environmental or individual confounders. This association presents an opportunity for criminology to reduce the burden of age-related disease and early mortality, which would benefit individuals with antisocial behaviors as well as public health systems. Targeted interventions may interrupt the path from a youth's antisocial behaviors to becoming a high-need/high-cost public service user, including judicial and health systems in later life.