

Physical Frailty and Cognitive Impairment: Intersection, Measurement & Etiologies

<https://neurodegenerationresearch.eu/survey/physical-frailty-and-cognitive-impairment-intersection-measurement-etiological/>

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Contact information of lead PI Country

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Physical Frailty and Cognitive Impairment: Intersection, Measurement & Etiologies

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Research Abstract

Project Summary One of the biggest challenges of healthcare worldwide is the medical and economic burden of caring for dependent older adults ravaged by physical and cognitive impairments. As two of the most common geriatric conditions, frailty and cognitive impairment

are known to be associated with increased risk for poor health outcomes. The fact that physical frailty and cognitive impairments are associated and often coexist in older adults has led to the popular view of expanding the definition of frailty to include cognitive impairment. Meanwhile, there is increasing epidemiological and statistical evidence that cognition is separable from physical functioning, which is reinforced by our personal encounters of older adults who are physically robust but cognitively frail and vice versa. What is unknown is whether there are sentinel patterns in the joint or temporal development of physical frailty and cognitive impairment and whether these patterns reflect different etiologies. We hypothesize that cognitive impairment and physical frailty result in part from distinct physiological processes, hence cannot be considered as a single syndrome, and the varying patterns of symptom emergence may signal different etiologic pathways. Using data collected over 4 years in a nationally representative sample of 7439 adults aged ≥65 from the National Health and Aging Trends Study, the proposal aims to (1) estimate joint prevalence of physical frailty and cognitive impairments, characterize the temporal patterns of incident physical frailty and cognitive impairment, and correlate them with demographic and disease characteristics and health events; (2) develop and validate a new joint phenotype of physical frailty and cognitive impairment independent of neurodegenerative etiologies, and cross-validate it against the construct of “physical frailty” proposed by the International Academy of Nutrition & Aging and the International Association of Gerontology and Geriatrics; and (3) evaluate the predictive accuracy added by the joint phenotype for adverse aging outcomes, above and beyond that achieved by physical frailty alone, chronological age, and comorbidity. In the aggregate, this study may help facilitate a discourse about the precise meaning of “cognitive frailty” and thereby help inform the design, development, and prioritization of preventive and intervention strategies for maximal impact.

Further information available at:

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