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| <b>Paper Category:</b>   | Diagnosis and Aetiology  |
| <b>Paper Title:</b><br>(Arial Font; 14 Pt Size)  | <b>Predictive validity of intrinsic capacity for frailty progression at 2 years in community-dwelling older adults: Comparison of 4 scales</b>                   |
| <b>Abstract Body:</b><br>(Arial Font; 12Pt Size)   | <ul style="list-style-type: none"> <li>• Background</li> <li>• Objectives</li> <li>• Method</li> <li>• Results</li> <li>• Discussions and Conclusions</li> </ul> |
| <p>(Maximum word limit - 300 words)</p> <p><b>Background</b><br/>Intrinsic capacity (IC) and frailty are complementary constructs which encapsulate functional capacities of older adults. Although earlier studies suggest low IC as a risk factor for frailty, gaps remain with limited longitudinal studies, varying IC operationalisation, and lack of studies using the World Health Organisation's (WHO) Integrated Care for Older People (ICOPE) tool as an IC measure.</p> <p><b>Aim</b><br/>We aimed to compare different IC scales in their predictive ability for frailty progression at 2 years in healthy community-dwelling older adults.</p> <p><b>Methods</b><br/>We studied 230 participants (age 67.2±7.4 years) from the GeriLABS-2 cohort study. Based on four IC domains (locomotion, cognition, vitality and psychological) at baseline, we derived 4 composite scores: IC1- Chew 2021<sup>1</sup>, range:0-8; IC2- Liu 2021<sup>2</sup>, range:0-4; IC3- ICOPE<sup>3</sup>, range:0-4; IC4- modified ICOPE<sup>3</sup>, range:0-8. The primary outcome was frailty progression at 2 years using the 5-item modified Fried Frailty Phenotype. We performed logistic regression to examine the primary association of baseline composite IC with frailty progression. We also examined the impact of individual domains and number of impaired domains on frailty progression.</p> <p><b>Results</b><br/>Amongst 193 (83.9%) older adults who completed 2-year follow-up, 20 (10.4%) met criteria for progression. When adjusted for covariates, 8-point scales (IC1 and IC4) predicted increased risk of frailty progression (OR=4.13, 95%CI:1.49-11.43; OR=4.78, 95%CI:1.68-13.58). When further adjusted for baseline frailty, only IC4 was significant (OR=4.10, 95%CI:1.40-12.03). Impaired locomotion domain (IC1/IC2) was most commonly associated with frailty progression, followed by vitality (IC1). Greater number of impaired domains predicted increased risk of frailty progression on IC1/IC2 (<math>\beta</math>=0.16 to 0.18, <math>p&lt;0.05</math>) but not ICOPE scales.</p> <p><b>Conclusions</b><br/>Amongst healthy community-dwelling older adults, baseline IC was associated with frailty progression underpinned by locomotion/vitality domains and number of</p> |  |

impaired domains. Eight-point IC scales (in particular, the modified ICOPE) had better predictive validity for frailty progression.

<sup>1</sup>Chew, J et al. "Disentangling the Relationship between Frailty and Intrinsic Capacity in Healthy Community-Dwelling Older Adults: A Cluster Analysis." *The journal of nutrition, health & aging* vol. 25,9 (2021): 1112-1118.

doi:10.1007/s12603-021-1679-2

<sup>2</sup>Liu, Shuo et al. "Trajectory and Correlation of Intrinsic Capacity and Frailty in a Beijing Elderly Community." *Frontiers in medicine* vol. 8 751586. 9 Dec. 2021, doi:10.3389/fmed.2021.751586

<sup>3</sup>World Health Organisation. "Integrated Care for Older People (ICOPE): Guidance for Person-Centred Assessment and Pathways in Primary Care." *World Health Organisation*. [apps.who.int/iris/handle/10665/326843s](https://apps.who.int/iris/handle/10665/326843s)

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