

Frailty Index as a Predictor of Mortality in Middle-Aged and Older People: A Prospective Analysis of Chilean Adults

Diaz-Toro, Felipea, b;
Nazar, Gabrielac;
Troncoso, Claudiad;
Concha-Cisternas, Yenyee, f;
Leiva-Ordoñez, Ana Mariag;
Martinez-Sanguinetti, Maria Adelah;
Parra-Soto, Solangei;
Lasserre-Laso, Nicolej;
Cigarroa, Igork;
Mardones, Lorenal;
Vásquez-Gómez, Jaimem, n;
Petermann-Rocha, Fanny

Abstract

We aimed to investigate the association between frailty status and all-cause mortality in middle-aged and older people. We included 2661 individuals aged ≥ 35 from the Chilean National Health Survey 2009–2010. Mortality was determined through linkage with the Chilean Civil Registry and Identification. A 36-item frailty index (FI) was used to assess the frailty status. Associations between frailty status and all-cause mortality were assessed using Kaplan–Meier and Cox proportional hazard models adjusted for sociodemographic and lifestyle factors. A non-linear association was investigated using penalized cubic splines fitted in the Cox models. During an 8.9 median follow-up (interquartile range of 8.6–9.0), 308 individuals died (11.5%). Lower survival rates were observed in frail individuals compared to pre-frail and robust people (log-rank < 0.001). Compared with robust individuals, frail people had a higher mortality risk (HR: 2.35 [95% CI: 1.57 to 3.51]). Frail middle-aged individuals had a higher risk of dying independently of major risk factors. © 2023 by the authors.

Author keywords

Chile; frailty; middle-aged; mortality