

From curing to caring

A sequence analysis exploring trajectories of multimorbidity and social care needs among older adults in twelve European countries

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The process from multimorbidity to experiencing care needs is usually understood as a linear process known as the 'evolution of chronic disease'. However, this process might be less straightforward, mainly because the trajectories of (multi)morbidity and social care needs are complex. **Objective:** This study aimed to explore the trajectories of multimorbidity and social care needs, operationalized respectively as having more than one chronic health condition and facing any moving limitation and for performing Activities of Daily Living and Instrumental Activities of Daily Living. **Data:** Using data of individuals that were 50+ in six waves (1st, 2nd, 4th, 5th, 6th and 8th) of the Survey of Health, Ageing and Retirement in Europe (SHARE), we analysed individuals' trajectories in 12 European countries: Austria, Belgium, Czech Republic, Denmark, France, Germany, Greece, Italy, the Netherlands, Spain, Sweden and Switzerland (n=42,100). **Methods:** Sequence analysis was used to identify different trajectories of multimorbidity and social care needs. These diverse paths were clustered through OMstran, an Optimal Matching method for measuring dissimilarities between individuals' sequences. Based on these clusters, multinomial regression models were fitted to understand how demographic, socioeconomic, health-related and living arrangements dimensions explained individuals' trajectories. **Results:** Permanent multimorbidity and social care needs; (2) Chronic condition evolving to multimorbidity with social care needs; (3) Chronic condition evolving to multimorbidity without social care needs; (4) Recovered from one chronic condition. Results showed that women are at higher risk of experiencing permanent multimorbidity and social care needs than men. Regarding country differences, Greek individuals face the highest probability of being in the first trajectory, while Swiss the lowest. **Conclusion:** Understanding the trajectories of multimorbidity and social care needs holds the potential for designing and adapting social care and healthcare systems in line with ageing societies' urgent needs and demands.

Key words: Multimorbidity; Care needs; Ageing; Sequence Analysis; Europe.