Frailty in Older Persons

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KEYWORDS

• Disability • Geriatrics • Assessment • Elderly • Prevention

KEY POINTS

- *Frailty* is defined as a clinical state characterized by an increased vulnerability of an organism to stressors, exposing individuals to negative health-related outcomes.
- Multiple operational definitions are available for capturing the risk profile of frail elders, but a gold standard is currently missing.
- The identification of frailty should lead to a comprehensive geriatric assessment (CGA) and personalized plan of intervention.
- Multidomain interventions are needed against frailty, but actions should be prioritized and carefully chosen to avoid overtreatment and adverse events.
- Novel models of care might be built up around the frailty condition to address the currently unmet clinical needs of older persons.

INTRODUCTION

The number of scientific publications on frailty has been increasing exponentially during the past 15 years (**Fig. 1**). Studies on the topic are not limited to the geriatric and gerontology fields, but discussions about frailty have also started appearing in other specialties and disciplines. Such a growing interest probably finds its common denominator in the severe burden that global aging is posing to society and public health systems.

The absolute and relative increase of older persons is a phenomenon occurring worldwide, from the richest to the poorest regions of the earth. At the same time, advanced age brings a higher likelihood of presenting multiple (often chronic and interacting) conditions, accentuated by frequent socioeconomic issues. The resulting scenario is characterized by a growing demand of care services for clinically complex elders, a population for which the application of standard decisional algorithms and

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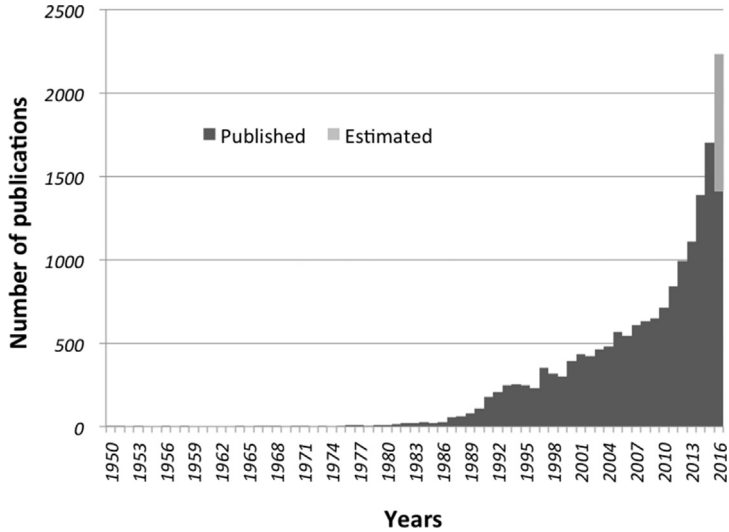

Fig. 1. Number of scientific publications per year on frailty indexed in PubMed. Research updated on August 18, 2016, and conducted for the terms, "Frailty" and "Frail". (*Dark gray*) indexed articles; (*light gray*) estimated articles to be published from August 18, 2016, to the end of the year.

evidence is frequently challenging (due to the long-lasting and still detrimental evidence-based issue in geriatrics[1]).[2]

The concept of *frailty* can be found in the geriatric medicine literature in articles that first appeared in the 1950s and 1960s[3,4] and a more relevant body of contributions in the 1980s and 1990s (see **Fig. 1**). The condition of extreme vulnerability has always characterized the typical geriatric patient.[5] A more consistent and frequent use of the term frailty started, however, after the publication of its formal operational definitions. This is, although the birth of frailty is usually dated to 2001 (when the frailty phenotype was proposed by Fried and colleagues[6]), this condition had been object of study by geriatricians and gerontologists for several decades prior.

WHAT FRAILTY IS

Frailty is defined as a clinical state in which there is an increase in an individual's vulnerability to developing negative health-related events (including disability, hospitalizations, institutionalizations, and death) when exposed to endogenous or exogenous stressors.[7] This means that the same stressor may cause different consequences when soliciting a frail individual (ie, severe and prolonged functional loss and higher likelihood of incomplete recovery) compared with a robust person (ie, prompt and complete recovery with minor—if any—consequences).[8]

In parallel with the concept of frailty, the term, *resilience*, has started being used more frequently during the last few years. It is described as "the human ability to adapt in the face of tragedy, trauma, adversity, hardship, and ongoing significant life stressors."[9] Resilience explains why 2 apparently similar frail persons may react differently to the same negative stimulus. The one able to better cope with the stressor is considered characterized by higher resilience, which is the external resources that an organism has available for counteracting the negative forces challenging its homeostasis (eg, more robust social network and higher economic status).