Mini Review

BIOMEDICAL Journal of Scientific & Technical Research

ISSN: 2574 -1241

DOI: 10.26717/BJSTR.2022.44.007019

Should Loneliness be a Criterion for Frailty?

Nuria Parra-Macias[1]* and Ana Lozano-Minana[2]

[1]Health Promotion Unit, Hospital Universitari Sagrat Cor Barcelona, Spain

[2]Frailty Unit, Department of Internal Medicine, Hospital Universitari Sagrat Cor Barcelona, Spain

***Corresponding author:** Nuria Parra-Macias, Health Promotion Unit, Hospital Universitari Sagrat Cor Viladomat, 288 Barcelona, 08029, Spain

ARTICLE INFO

Received: May 24, 2022

Published: May 31, 2022

Citation: Nuria Parra-Macias, Ana Lozano-Minana. Should Loneliness be a Criterion for Frailty?. Biomed J Sci & Tech Res 44(2)-2022. BJSTR. MS.ID.007019.

Keywords: Frailty; Elderly; Disability; Loneliness; Social Isolation

ABSTRACT

Frailty increases the risk of geriatric syndromes and adverse health outcomes in older and vulnerable populations, including falls, hospitalization, and death. Frailty was initially defined as a syndrome with biological underpinnings. Nevertheless, different social factors have also been related to adverse health outcomes in the elderly. Loneliness, as the perceived absence of positive social relationships, has been linked to diminished longevity, particularly among older individuals in whom declining economic resources, illness, widowhood, and impaired mobility may result in increased risk for social isolation. Elderly people feeling alone have a higher risk of becoming frails. The mechanisms underlying these associations remain unclear. Frail older adults often have multi-domain risk factors in terms of physical, psychological, and social health, but most of tools and criteria defining frailty take in consideration just physical factors. Other few incorporate psychological aspects and those who consider social aspects as loneliness and social isolation, as Tilburg Frailty Indicator, are scarce.

Frailty in the Elderly

Frailty is defined as an extreme vulnerability of the organism to endogenous and exogenous stressors, a syndrome that exposes the individual at higher risk of negative health-related outcomes as well as a transition phase between successful aging and disability [1-3]. The risk of geriatric syndromes is increased by frailty, as well as adverse consequences such as falls, a higher probability to be admitted into a hospital and mortality [4]. These outcomes, mainly disabilities, are a significant burden for the person, his or her family, and public health care systems. To guarantee the sustainability of public health systems and improve the quality of care provided, it is becoming urgent to act to prevent and delay the disabling cascade by early recognition of frailty [5]. Frailty is a key concept in geriatric consultation. It has been used in many ways, according to its historical evolution: from the phenotypic model of frailty defined by Linda P. Fried [6] to the Morley's model [7], without forgetting the Rockwood's theory of cumulative deficits which results in frailty [8]. Currently we can consider frailty as a state of pre-disability or risk of developing a new disability from a situation of incipient functional limitation. We could define it in another way, as a syndrome characterized by a decrease in strength and resistance, with an increase in vulnerability to low-intensity stressors, produced by an alteration in multiple interrelated systems, which decreases the reserve homeostasis and the adaptation capacity of the organism, predisposing it to adverse health events, greater probabilities of dependency and even death [9]. Considering all these definitions, we can find a common denominator among them, as they are based on biological and functional factors. Up to now, different social factors have also been related to adverse health outcomes in the elderly. Actually, some authors have used the term "social frailty" as a precursor of disability, depression and mortality

 DOI: 10.26717/BJSTR.2022.44.007019

[10,11]. Integrative reviews of the literature provide consistent evidence that social relationships – both quantity and quality – are protective factors against mortality and morbidity [12].

Loneliness and Social Isolation

Unexpected loneliness is a multicausal phenomenon targeting everybody, determining physical and mental conditions. Nevertheless, the elderly are especially vulnerable. Unexpected loneliness can be defined by the subjective perception that the relationships we maintain with other people, or the social networks we are part of, seem to us insufficient, distant, or poor-quality to meet our emotional needs [13]. Some authors used loneliness as a synonym of social isolation regardless their differences. Social isolation refers to an objective situation of absence of contact and links between other people. While unexpected loneliness is a subjective emotion, social isolation can be impartially ascertained. Although the feeling of loneliness tends to be more present among people living alone, not all people living alone have a feeling of loneliness, as many live alone as a choice and not consequently [14]. In Spain there are 4,889,900 people living alone, which means that 10.4% of households are one-person. Out of them, 2,131,400 (43.6%) are 65 years old or older. More than 850,000 living alone are 80 years old or older and the vast majority are women: 662,000 [15]. Retirement, widowhood, low incomes, and chronic comorbidities are associated with this profile [16]. There is also evidence of social isolation impact and loneliness on people's health, as they are risk factors for mortality and morbidity due to sedentary lifestyle, obesity, or alcohol consumption. People with poor social relationships have an increased risk for coronary disease (29%) and cerebral stroke (32%) compared to reference population. According to the Spanish National Institute of Statistics (INE), about 50% of the population will be over 60 years old by 2030 [15]. So, loneliness and social isolation associated to ageing appear to be one major public health challenge for the next few years.

Relationship between Frailty, Loneliness and Social Isolation

Recent evidence has also indicated that frailty and loneliness might be associated. Elderly people feeling alone have a higher risk of becoming frails [17,18]. New data coming from a British cohort stated this finding too and they also stablished an association between social isolation and frailty [19]. The mechanisms underlying these associations remain unclear [20]. Anyhow, some hypotheses have been proposed. One possibility refers to loneliness' long-term effects: loneliness might affect to physical components which define frailty, such as sarcopenia, weight loss, march impairment and ageing. On the other hand, several studies have shown the importance of social and environmental factors to develop frailty. Taking part in social activities seems to protect against frailty.

Further Directions

According to the progress of consensuses for the definition of frailty, multiple instruments have been proposed to fix frailty. These screening or defining tools consider mostly functional and physical factors, whereas risk factors for frailty in the elderly come from several domains, such as social and psychological ones [21,22]. Other few incorporate psychological aspects and those who consider social aspects as loneliness and social isolation, as Tilburg Frailty Indicator [23], are scarce. As loneliness seems to be related to frailty development, it should be considered within criteria defining frailty. The screening validity of these new multi-domain tools taking into account loneliness need to be assessed with further studies.

Acknowledges

None.

Conflict of Interest

None.

References

1. Xue QL (2011) The frailty syndrome: definition and natural history. Clin Geriatr Med 27(1): 1-15.
2. Hoogendijk EO, Afilalo J, Ensrud KE, Kowal P, Onder G, et al. (2019) Frailty: implications for clinical practice and public health. Lancet 394(10206): 1365-1375.
3. Dent E, Kowal P, Hoogendijk EO (2016) Frailty measurement in research and clinical practice: A review. Eur J Intern Med 31: 3-10.
4. Walston J, Buta B, Xue QL (2018) Frailty Screening and Interventions: Considerations for Clinical Practice. Clin Geriatr Med 34(1): 25-38.
5. Cesari M, Prince M, Thiyagarajan JA, De Carvalho IA, Bernabei R, et al. (2016) Frailty: An Emerging Public Health Priority. J Am Med Dir Assoc 17(3): 188-192.
6. Fried LP, Tangen CM, Walston J, Newman AB, Hirsch C, et al. (2001) Frailty in older adults: evidence for a phenotype. J Gerontol A Biol Sci Med Sci 56(3): M146-M156.
7. Morley JE, Vellas B, van Kan GA, Anker SD, Bauer JM, et al. (2013) Frailty consensus: a call to action. J Am Med Dir Assoc 14(6): 392-397.
8. Rockwood K, Mitnitski A (2007) Frailty in relation to the accumulation of deficits. J Gerontol A Biol Sci Med Sci 62(7): 722-727.
9. Ramos Cordero P (2014) Guía de buena práctica clínica en geriatría. Fragilidad y Nutrición. Sociedad Española de Geriatría y Gerontología. Madrid, Spain, p. 14.
10. Ma L, Sun F, Tang Z (2018) Social Frailty is Associated with Physical Functioning, Cognition, and Depression, and Predicts Mortality. J Nutr Heal Aging 22(8): 989-995.

11. Hoogendijk EO, Smit AP, Van Dam C, Schuster NA, de Breij S, et al. (2020) Frailty Combined with Loneliness or Social Isolation: An Elevated Risk for Mortality in Later Life. J Am Geriatr Soc 68(11): 2587-2593.

12. Ong AD, Uchino BN, Wethington E (2016) Loneliness and Health in Older Adults: A Mini-Review and Synthesis. Gerontology 62(4): 443-449.

13. Yanguas J, Pinazo-Henandis S, Tarazona-Santabalbina FJ (2018) The complexity of loneliness. Acta Bio Med. Atenei Parm 89(2): 302-314.

14. Gardiner C, Geldenhuys G, Gott M (2016) Interventions to reduce social isolation and loneliness among older people: An integrative review. Heal Soc Care Community 26(2): 147-157.

15. (2021) Instituto Nacional de Estadística. Encuesta continua de hogares. Año 2020 [Internet]. Instituto Nacional de Estadística. Madrid.

16. Richard A, Rohrmann S, Vandeleur CL, Schmid M, Barth J, et al. (2017) Loneliness is adversely associated with physical and mental health and lifestyle factors: Results from a Swiss national survey. PLoS ONE 12(7): e0181442.

17. Gale CR, Westbury L, Cooper C (2018) Social isolation and loneliness as risk factors for the progression of frailty: The English Longitudinal Study of Ageing. Age Ageing 47(3): 392-397.

18. Sha S, Xu Y, Chen L (2020) Loneliness as a risk factor for frailty transition among older Chinese people. BMC Geriatr 20(1): 300.

19. Davies K, Maharani A, Chandola T, Todd C, Pendleton N (2021) The longitudinal relationship between loneliness, social isolation, and frailty in older adults in England: a prospective analysis. Lancet Heal Longev 2: e70-77.

20. Mehrabi F, Béland F (2020) Effects of social isolation, loneliness and frailty on health outcomes and their possible mediators and moderators in community-dwelling older adults: A scoping review. Arch Gerontol Geriatr 90: 104119.

21. Walston J, Buta B, Xue QL (2018) Frailty Screening and Interventions: Considerations for Clinical Practice. Clin Geriatr Med 34(1): 25-38.

22. Lee H, Lee E, Jang IY (2020) Frailty and Comprehensive Geriatric Assessment. J Korean Med Sci 35(3): e16.

23. Zhang X, Tan SS, Bilajac L, Alhambra-Borrás T, Garcés-Ferrer J, et al. (2020) Reliability and Validity of the Tilburg Frailty Indicator in 5 European Countries. J Am Med Dir Assoc 21(6): 772-779.

ISSN: 2574-1241

DOI: 10.26717/BJSTR.2022.44.007019

Nuria Parra-Macias. Biomed J Sci & Tech Res

This work is licensed under Creative *Commons* Attribution 4.0 License

Submission Link: https://biomedres.us/submit-manuscript.php

Assets of Publishing with us

- Global archiving of articles
- Immediate, unrestricted online access
- Rigorous Peer Review Process
- Authors Retain Copyrights
- Unique DOI for all articles

https://biomedres.us/