## RIASE

REVISTA IBERO-AMERICANA DE SAÚDE E ENVELHECIMENTO REVISTA IBERO-AMERICANA DE SALUD Y ENVEJECIMIENTO

## SPECIAL EDITION

III SEMINAR OF THE INTERNATIONAL RESEARCH NETWORK
ON VULNERABILITY, HEALTH, SAFETY AND QUALITY
OF LIFE AMONG ELDERLY INDIVIDUALS:
BRAZIL, PORTUGAL AND SPAIN



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In addition to its ordinary issues, the Ibero-American Journal of Health and Aging (RIASE) publishes special issues dedicated to a theme or event whenever it deems it opportune to do so, as is presently the case.

A number of universities from different parts of the world have decided to establish a partnership with the objectives of producing and disseminating research concerning the following themes: vulnerability, health, safety and quality of life among elderly individuals. The partner universities are as follows:

- Catholic University of Murcia (Spain),
- Federal University of Rio Grande do Norte (Brazil),
- Catholic University of Pernambuco (Brazil),
- State University of Campinas (Brazil),
- Université Paris Cite (France) and
- University of Évora School of Nursing of S. João de Deus.

These entities met in Évora on the 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> of June 2024 with the objective of sharing the work that had been performed as of that point, which was sorted on the basis of the following themes:

- Aging safely in different contexts.
- Mental health, violence and family support during the aging process.
- Learning processes during the elderly stage of life.
- Psychosocial aspects of human aging.
- Quality of life and interventions to support active and healthy aging.
- Ethical and forensic aspects and human development in aging.

However, other reasons also support the publication of this special issue. Indeed, in the context of the Comprehensive Health Research Center, with which the majority of the researchers from the School of Nursing of S. João de Deus, University of Évora, are associated, we have been developing a set of projects for some time; in particular, all of these projects focus on vulnerability.

In fact, Portugal features some of the most notable indicators of aging worldwide. However, a serious challenge that emerges in this context pertains to the phenomenon of chronic multimorbidity, which is prevalent among elderly individuals and is often associated with functional dependence; this phenomenon reduces the number of years for which elderly individuals can live healthy lives and has adverse impacts on their quality of life. Importantly, Portugal is one of the member countries of the Organisation for Economic Co-operation and Development (OECD) in which older people have the most negative self-perceptions regarding their health status. Namely, 50% of people aged 65 years or older in this context report experiencing at least one limitation in terms of their daily activities: 33% of these people report mild to moderate limitations, while 17% report severe limitations<sup>(1)</sup>. In line with these findings, the indicators for the number of years of healthy living at age 65 in this context for both men (8.4 years) and women (7.4 years) were below the European average in 2019 (i.e., 10.4 years and 10.2 years, respectively)(2).

<sup>1.</sup> OECD. (2019). Health at a Glance 2019: OECD Indicators. https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019\_4dd50c09-en

<sup>2.</sup> PORDATA. (2024). Anos de vida saudável aos 65 anos: por sexo.

According to Bao *et al*, multimorbidity significantly increases the risk of dependence, especially when this factor is combined with conditions that affect individuals' cognitive and mental status<sup>(3)</sup>. Dependence pertaining to mental deterioration is a frequent occurrence and mostly takes the forms of dementia, depression and anxiety, which can severely limit people's ability to achieve self-care.

The relationship between dependence and the health condition of a given individual is characterized by bidirectionality, such that these factors mutually aggravate one another. This condition is particularly relevant, as a significant number of elderly people are unable to meet their self-care requirements<sup>(4,5)</sup>. An adequate response is thus necessary to avoid aggravating the health condition of such people.

Storeng et al. conducted a cross-sectional analysis and reported that people who are between 60 and 69 years of age and suffer from three or more diseases are characterized by a complex morbidity profile; as time progresses, these individuals tend to develop severe disabilities with respect to basic health activities and their daily lives and to exhibit a moderate risk of mortality<sup>(6)</sup>. Dr. Ricardo Jorge at the National Institute of Health conducted a study on this topic; the results revealed that 38.3% of Portuguese individuals with chronic multimorbidity (especially elderly individuals) are as much as 2.4 times more likely to use health services than are individuals who do not exhibit chronic diseases<sup>(7)</sup>.

<sup>3.</sup> Bao, J., Chua, K. C., Prina, M., & Prince, M. (2019). Multimorbidity and care dependence in older adults: A longitudinal analysis of findings from the 10/66 study. BMC Public Health, 19(1), 1-10. https://doi.org/10.1186/S12889-019-6961-4/FIGURES/2

<sup>4.</sup> Fonseca, C., Ramos, A., Pinho, L. G., Morgado, B., Oliveira, H., & Lopes, M. (2022). Functional Profile of Older Adults Hospitalized in Rehabilitation Units of the National Network of Integrated Continuous Care of Portugal: A Longitudinal Study. Journal of Personalized Medicine, 12(11), 1937. https://doi.org/10.3390/jpm12111937

<sup>5.</sup> Lopes, M. J., & Sakellarides, C. (2021). Os Cuidados de Saúde Face aos Desafios do Nosso Tempo: Contributos para a Gestão da Mudança (M. J. Lopes & C. Sakellarides, Eds.). Universidade de Évora.

<sup>6.</sup> Storeng, S. H., Vinjerui, K. H., Sund, E. R., & Krokstad, S. (2020). Associations between complex multimorbidity, activities of daily living and mortality among older Norwegians. A prospective cohort study: The HUNT Study, Norway. BMC Geriatrics, 20(1), 1-8. https://doi.org/10.1186/S12877-020-1425-3/TABLES/4

<sup>7.</sup> Romana, G. Q., Kislaya, I., Gonçalves, S. C., Salvador, M. R., Nunes, B., & Dias, C. M. (2020). Healthcare use in patients with multimorbidity. European Journal of Public Health, 30(1), 16-22. https://doi.org/10.1093/EURPUB/CKZ118

In summary, aging can lead to chronic multimorbidity and, consequently, dependence, especially functional dependence; in turn, these conditions can lead to fewer years of healthy life and decreased quality of life. We know, however, that it is possible to reverse these problems (at least in part) if we act throughout the life course, including in terms of the rehabilitation, readaptation and reinsertion of the relevant individuals into society.

For these reasons, among others, we make two assertions. First, these people can be associated with the concept of vulnerability. Second, these people continue to be subject to the law of inverse care<sup>(8)</sup>; that is, the supply of high-quality social and health services is inversely proportional to the needs of a population.

These people are associated with the concept of vulnerability because, according to UNECE, vulnerabilities are long-term characteristics and circumstances that increase individuals' risk of exposure to challenging events, decrease their access to resources and sources of support and increase the possibility of negative consequences for them<sup>(9)</sup>. In turn, vulnerable situations correspond to events that are experienced at a specific time, that entail difficulties in one or more areas of life, and that can decrease people's ability to adapt alongside their resilience, thus exacerbating the risk of negative impacts on their lives.

In this sense, we can also define vulnerability as the state exhibited by a person who, for some reason, is unable to take advantage of the opportunities that are available in different contexts to optimize their well-being and prevent decline<sup>(10,11)</sup>. In light of its relevance, this concept has been explored gradually and in a multidimensional way, particularly in terms of six dimensions: physical; psychological; relational or interpersonal; moral; sociocultural or political-economic; and existential or spiritual<sup>(11)</sup>.

<sup>8.</sup> Tudor Hart, J. (1971). THE INVERSE CARE LAW. The Lancet, 297(7696), 405-412. https://doi.org/10.1016/S0140-6736(71)92410-X

<sup>9.</sup> UNECE - Standing Working Group on Ageing. (2023). Policy Brief on Ageing. Older Persons in Vulnerable Situations. https://unece.org/sites/default/files/2024-01/ECE-WG.1-42-PB28.pdf

<sup>10.</sup> Barbosa, K. T. F., & Fernandes, M. D. G. M. (2020). Elderly vulnerability: concept development. Revista Brasileira de Enfermagem, 73, e20190897. https://doi.org/10.1590/0034-7167-2019-0897

<sup>11.</sup> Sanchini, V., Sala, R., & Gastmans, C. (2022). The concept of vulnerability in aged care: a systematic review of argument-based ethics literature. BMC Medical Ethics, 23(1), 1–20. https://doi.org/10.1186/S12910-022-00819-3/TABLES/8

We affirm that these people continue to be subject to the inverse care law because, although Portugal has responded to this situation through public services or agreements with the state, it continues to be very difficult to understand the needs of this specific population and to encourage them to seek the care that they need.

Accordingly, through various projects and in different contexts, we are currently developing an artificial intelligence (AI) algorithm that can be used to measure the level of vulnerability exhibited by the elderly population.

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