Geriatrics, Gerontology and Aging
ISSN: 2447-2115
ISSN: 2447-2123
Sociedade Brasileira de Geriatria e Gerontologia, SBGG

Ferriolli, Eduardo; Lourenço, Roberto Alves; Oliveira, Vitor Pelegrim de; Mello, Renato Gorga Bandeira de; Ferretti-Rebustini, Renata Eloah de Lucena; Jacob, Wilson; On behalf of the members of Núcleo de Pesquisa sobre o Envelhecimento e o Idoso (NAPENV)

Project ICOPE Brazil: a study on the intrinsic capacity of Brazilian older adults and accuracy of the screening tool proposed by the World Health Organization

Geriatrics, Gerontology and Aging, vol. 17, e0230003, 2023
Sociedade Brasileira de Geriatria e Gerontologia, SBGG

DOI: https://doi.org/10.53886/gga.e0230003

https://doi.org/10.53886/gga.e0230003

Project ICOPE Brazil: a study on the intrinsic capacity of Brazilian older adults and accuracy of the screening tool proposed by the World Health Organization

Projeto ICOPE Brasil: um estudo sobre capacidade intrínseca de idosos brasileiros e da acurácia do instrumento de rastreamento proposto pela Organização Mundial da Saúde

Eduardo Ferriolli[a,b,c,d], Roberto Alves Lourenço[c,e], Vitor Pelegrim de Oliveira[c,f,g], Renato Gorga Bandeira de Mello[c,f,g], Renata Eloah de Lucena Ferretti-Rebustini[c,d,h], Wilson Jacob Filho[a,c,d], On behalf of the members of Núcleo de Pesquisa sobre o Envelhecimento e o Idoso (NAPENV)

[a] Departamento de Clínica Médica, Faculdade de Medicina, Universidade de São Paulo – São Paulo (SP), Brazil.
[b] Departamento de Clínica Médica, Faculdade de Medicina de Ribeirão Preto, Universidade de Sao Paulo – Ribeirão Preto (SP), Brazil.
[c] Núcleo de Pesquisa sobre o Envelhecimento e o Idoso, Universidade de São Paulo – São Paulo (SP), Brazil.
[d] Laboratório de Investigação Médica em Envelhecimento, Faculdade de Medicina, Universidade de São Paulo – São Paulo (SP), Brazil.
[e] Departamento de Medicina Interna, Faculdade de Ciências da Saúde, Universidade do Estado do Rio de Janeiro – Rio de Janeiro (RJ), Brazil.
[f] Unidade Geriátrica, Divisão de Medicina Interna, Hospital de Clínicas de Porto Alegre – Porto Alegre (RS), Brazil.
[g] Programa de pós-graduação em Ciências Médicas, Faculdade de Medicina, Universidade Federal do Rio Grande do Sul – Porto Alegre (RS), Brazil.
[h] Departamento de Enfermagem Médico-Cirúrgica, Escola de Enfermagem, Universidade de São Paulo – São Paulo (SP), Brazil.

Correspondence data:
Eduardo Ferriolli – Avenida Doutor Arnaldo, 455 – Sala 1151 – Cerqueira César – CEP: 01246-903 – São Paulo (SP), Brazil.
E-mail: eduardo.ferriolli@fm.usp.br

Received on: 01/21/2023.
Accepted on: 01/31/2023.

How to cite this article: Ferriolli E, Lourenço RA, Oliveira VP, Mello RGB, Ferretti-Rebustini REL, et al. Project ICOPE Brazil: a study on the intrinsic capacity of Brazilian older adults and accuracy of the screening tool proposed by the World Health Organization. Geriatr Gerontol Aging. 2023;17:e0230003. https://doi.org/10.53886/gga.e0230003

In its 2015 *World Report on Ageing and Health*,[1] the World Health Organization (WHO) defined healthy aging as the process of developing and maintaining functional ability to enable well-being in older age.

In 2017, WHO published guidelines for the implementation of a public health strategy with this purpose: Integrated Care for Older People (ICOPE).[2] Based on the concepts of *functional ability* (the health-related attributes that enable people to be and to do what they have reason to value), *intrinsic capacity* (IC, the combination of all physical and mental capacities that an individual has at their disposal), and *patient-centered care*, the ICOPE strategy systematically established a set of actions at the primary care level to screen and identify people at greater risk of adverse health outcomes, as well as suggested affordable interventions that can improve their overall health.[2] Optimization of IC can have a significant impact on quality of life, reducing care dependency and, consequently, relieving the burden on health services.[2]

Once the concept of IC was consolidated, WHO began to discuss the feasibility of establishing – based on suggestions from a group of experts – the standards, clinical regulations, and roadmaps needed to implement its Global Strategy and Plan of Action for Aging And Health.[3] This multidisciplinary panel of experts from several WHO international centers, known as the WHO Clinical Consortium on Healthy Aging (CCHA), established strategies to revolutionize clinical practice and define a toolkit to screen for IC loss and for implementing the ICOPE strategy in each country.[4] The main objective of this initiative is to provide evidence-based recommendations to identify, monitor, and manage IC in integrated health care networks, considering the six domains of IC (locomotor capacity, vitality, visual capacity, hearing capacity, cognitive capacity, and psychological capacity).[2]

The expert panel reviewed publications that evaluated instrument metrics and conducted a series of systematic reviews designed to determine the validity and reliability of diagnostic instruments, as well as to assess the psychometric properties of previously validated screening tests.[4]

The gateway to the system proposed by WHO thus constituted of the administration of a screening tool covering the six aforementioned domains (locomotor capacity, vitality, visual capacity, hearing capacity, cognitive capacity, and psychological capacity), composed of a series of questions and rapid tests.[4] Although constructed by highly regarded specialists and based on systematic reviews, as a whole, the tool was not robustly evaluated in terms of evidence of its validity and reliability – a fundamental step of the scientific method for any new evaluation instrument.

The currently available evidence on implementation of the WHO ICOPE strategy is still scarce and based on a heterogeneous literature, especially with regard to scientific quality. Some findings are derived from models built with retrospective data;[5,6] others were obtained from prospective studies that actually used the ICOPE screening tool as designed. Nevertheless, even direct evidence has methodological limitations that can compromise the quality of the information derived therefrom, mainly due to selection biases in the included samples and by the limited (or absent) applicability of psychometric methodologies to test the validity of clinical assessment instruments.[7-9] Therefore, although ICOPE is based on sound concepts, data on its applicability in a real-life setting – especially from longitudinal studies – remains scarce. Further research following rigorous protocols is needed to bridge these knowledge gaps.

In Brazil, a group of specialists in the fields of human aging and epidemiology has been working on a project designed to evaluate the IC of older Brazilians who receive care at primary health units. Toward this end, the Núcleo de Pesquisa sobre o Envelhecimento e o Idoso (NAPENV, Universidade de São Paulo) took on the task of bringing together researchers from 16 universities in Brazil (Universidade de São Paulo, Universidade Estadual de Campinas, Universidade Federal do Mato Grosso, Universidade Federal do Rio Grande do Sul, Universidade Federal do Amazonas, Universidade Federal do Rio Grande do Norte, Universidade do Estado do Rio de Janeiro, Universidade Federal de Minas Gerais, Universidade Federal do Ceará, Universidade Federal dos Vales do Jequitinhonha e Mucuri, Universidade Federal de Alfenas, Universidade Federal de Juiz de Fora, Universidade Federal de Santa Catarina, Universidade Federal do Triângulo Mineiro, Universidade Federal de Pernambuco, Universidade Federal do Sergipe) and abroad (Université de Toulouse, France; University of Birmingham, England), from several fields of knowledge (physical education, nursing, epidemiology, physiotherapy, medicine, occupational therapy), to co-design a rigorous investigative procedure on IC, the ICOPE strategy, and the validity of its screening tool. This union of researchers at NAPENV, in turn, led to the proposal of a multicenter, nationwide, prospective cohort study titled "Projeto ICOPE Brasil: avaliação da capacidade intrínseca nos idosos como fundamento para a implantação do ICOPE (*Integrated Care for Older People*) da Organização Mundial da Saúde no Sistema Único de Saúde" [Project ICOPE Brazil: assessment of intrinsic capacity in older adults as a basis for implementation of the WHO ICOPE strategy in the Unified Health System]. Project protocol design is in its final stages, and development is expected to begin in early 2023.

With this initiative, we hope to add to the knowledge of intrinsic capacity in Brazilian older adults who receive care in primary health units and to provide evidence of the validity and reliability of the ICOPE screening tool for measuring IC when applied in a primary health care (PHC) setting. Furthermore, and in an unprecedented manner, the longitudinal design of the ICOPE Brazil study will allow us to conduct a robust assessment of the capacity of various social, physical, and mental factors to predict IC decline, as well as to understand the role of IC loss in predicting major geriatric outcomes (such as functional and cognitive decline, falls, hospitalizations, and mortality) during follow-up.

Considering all the issues that still apply to development of the ICOPE strategy and the assessment of intrinsic capacity, Project ICOPE Brazil will contribute not only to the development of a solid scientific foundation for the care of older adults in Brazil, but also to the development of this important WHO initiative at the global level.

Members of Project ICOPE-Brazil

A complete list of the members of the Project ICOPE-Brazil appears in Supplement 1.

Conflict of interest

The authors report no conflicts of interest.

Funding

This project received funding from the Brazilian National Research Council (CNPq) (grant number 406612/2021-8).

Authors' contribution

EF: writing – original draft, writing – review & editing.
RAL: writing – original draft, writing – review & editing.
VPO: writing – original draft, writing – review & editing.
RGBM: writing – original draft, writing – review & editing.
RELFR: writing – original draft, writing – review & editing.
WJF: writing – original draft, writing – review & editing.

REFERENCES

1. World Health Organization. World report on ageing and health. Geneva: World Health Organization; 2015. Available from: https://apps.who.int/iris/handle/10665/186463. Acessado em Dez 15, 2022.
2. World Health Organization. Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity. Geneva: World Health Organization; 2017. Available from: https://apps.who.int/iris/handle/10665/258981. Acessado em Dez 15, 2022.
3. World Health Assembly, 69. The Global strategy and action plan on ageing and health 2016–2020: towards a world in which everyone can live a long and healthy life. Geneva: World Health Organization; 2017. Available from: https://apps.who.int/iris/handle/10665/252783. Acessado em Dez 15, 2022.
4. Organización Panamericana de la Salud. Atención integrada para las personas mayores (ICOPE). Guía sobre la evaluación y los esquemas de atención centrados en la persona en la atención primaria de salud. Washington: Organización Panamericana de la Salud; 2020.
5. Liu S, Yu X, Wang X, Li J, Jiang S, Kang L, et al. Intrinsic capacity predicts adverse outcomes using integrated care for older people screening tool in a senior community in Beijing. Arch Gerontol Geriatr. 2021;94:104358. https://doi.org/10.1016/j.archger.2021.104358
6. González-Bautista E, de Souto Barreto P, Virecoulon Giudici K, Andrieu S, Rolland Y, Vellas B. Frequency of conditions associated with declines in intrinsic capacity according to a screening tool in the context of integrated care for older people. J Frailty Aging. 2021;10(2):94-102. https://doi.org/10.14283/jfa.2020.42
7. Tavassoli N, Barreto PS, Berbon C, Mathieu C, Kerimel J, Lafont C, et al. Implementation of the WHO integrated care for older people (ICOPE) programme in clinical practice: a prospective study. Lancet Healthy Longev. 2022;3(6):e394-e404. https://doi.org/10.1016/S2666-7568(22)00097-6
8. Leung AYM, Su JJ, Lee ESH, Fung JTS, Molassiotis A. Intrinsic capacity of older people in the community using WHO Integrated Care for Older People (ICOPE) framework: a cross-sectional study. BMC Geriatr. 2022;22(1):304. https://doi.org/10.1186/s12877-022-02980-1
9. Ma L, Chhetri JK, Zhang Y, Liu P, Chen Y, Li Y, et al. Integrated care for older people screening tool for measuring intrinsic capacity: preliminary findings from ICOPE pilot in China. Front Med (Lausanne). 2020;7:576079. https://doi.org/10.3389/fmed.2020.576079