

# CREATING HEALTHY WORK ENVIRONMENTS

Best practices for building healthy workplaces in clinical and academic settings

Saturday, 23 February 2019

## A transdisciplinary strategy led by nurses to reduce frailty in elderly: the MIND&GAIT project

**João Luís Alves Apóstolo\***

*Filipa Costa Couto; Maria dos Anjos Dixe; Rita Santos-Rocha;  
Jaime Ribeiro; Luis Marcelino; Cândida Malça*



Phi Xi Chapter



MIND & GAIT

Cofinanciado por:



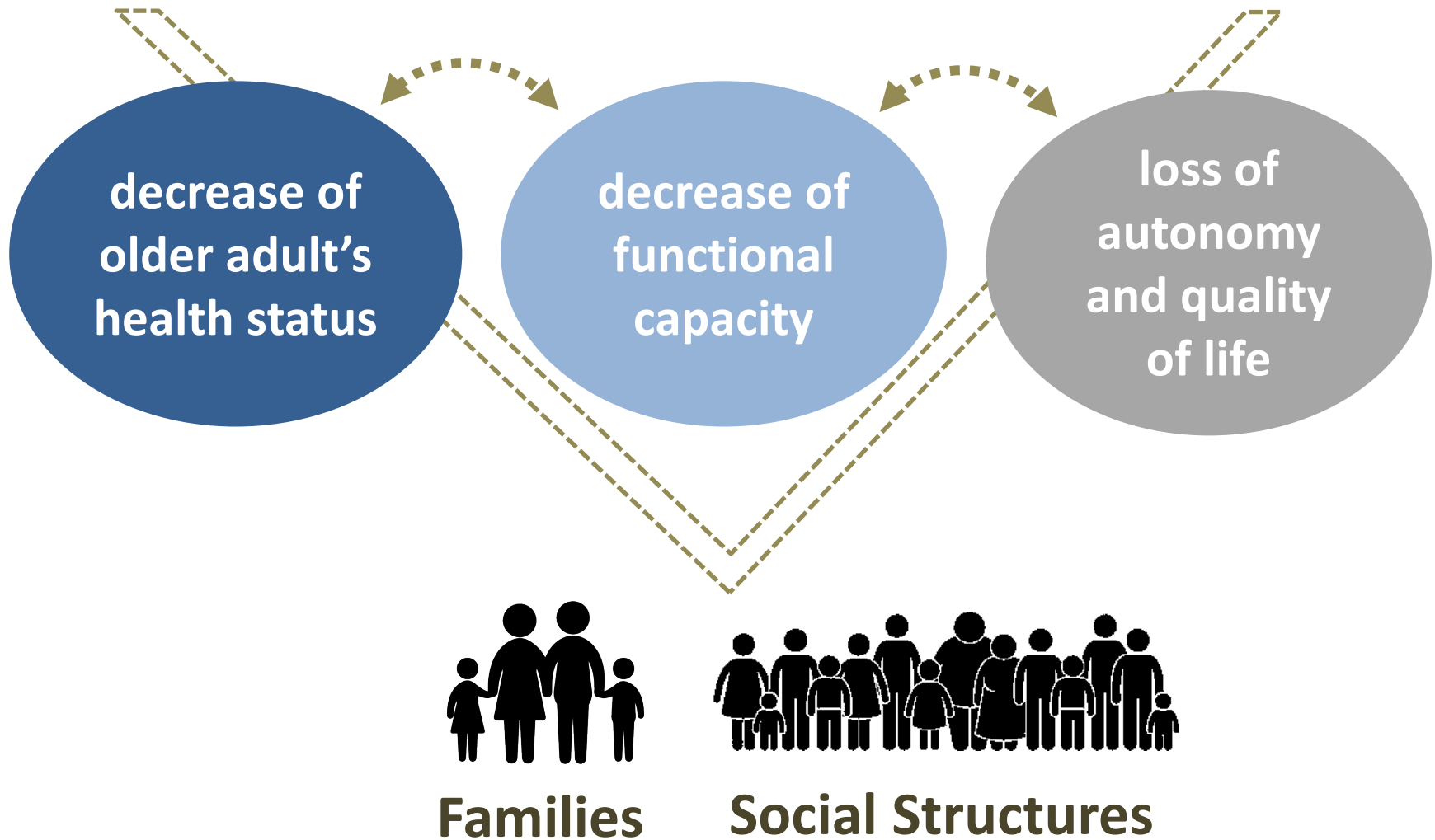
# Aging

The greatest social and economic challenge of the 21st century



**Health System's Sustainability is decreasing and the geriatric care offer is not enough considering the actual sociodemographic demands and medical / pharmacological approaches**

# Aged sociodemographic context



One of the most problematic expressions of aging is the geriatric condition of **Frailty**

Frail older adults are  
a vulnerable population

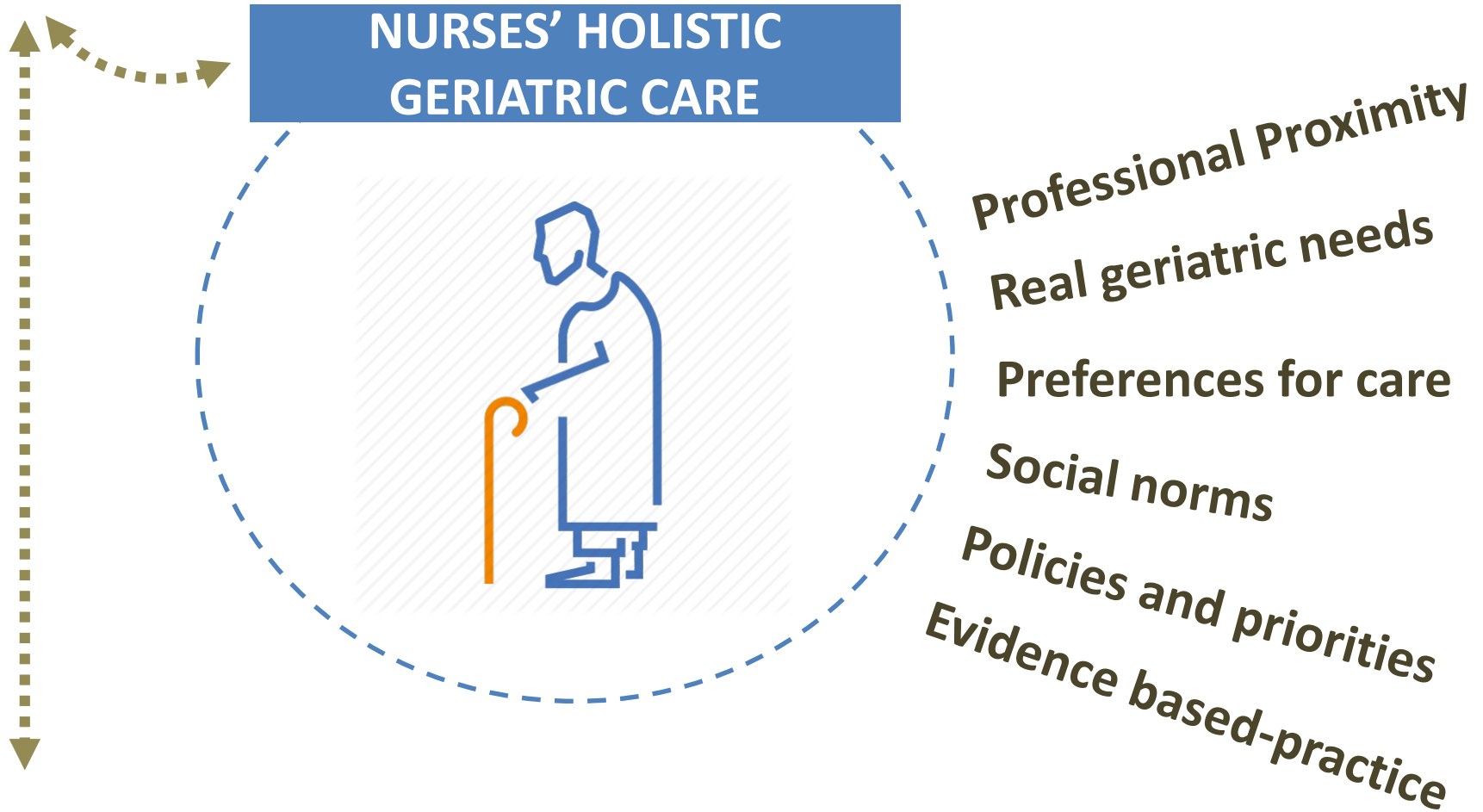
## Prevent frailty

- **Affordable** and **sustainable** measures of health promotion and disease prevention
- **Maximize the remaining functional capacity** of older adults to promote independence and autonomy through the implementation of non-pharmacological treatments

Emerging priority

**NURSES KNOW  
HOW TO DO IT**

# To maximize frail older adults' functional capacity



Different professionals integrated into **transdisciplinary teams**

# Proposed solution action plans-based



European Innovation  
Partnership on Active  
and Healthy Ageing



MIND & GAIT

Aims to prevent frailty in older  
adults by improving cognition  
and gait ability



Ageing@  
Coimbra



HEALTH SCIENCES  
RESEARCH UNIT  
NURSING  
UNIDADE DE INVESTIGAÇÃO  
EM CIÊNCIAS DA SAÚDE  
ENFERMAGEM



Nursing School of  
Coimbra - Portugal  
www.esenfcp.pt

# Crossdisciplinary and problem-oriented research for frailty

## Different types of expertise and “Know-how”





## Opportunity to involve persons from the different scientific areas and settings

45 **Researchers and professors**

120 **Students**

30 **Health and exercise professionals**

130 **Older adults**

15 **Caregivers**

6 **End-users and institutions from the primary healthcare level**

Foster academic collaborations;  
Empower decision-making in evidence-based practice;  
Connect clinical and academic to the geriatric real context;

Citizen engagement;  
Intergenerational interaction;  
Social and scientific inclusion;  
Multistakeholder partnerships;



# What we developed?

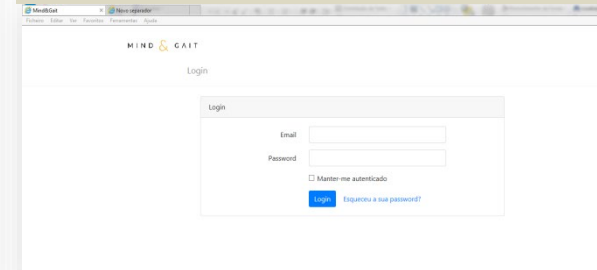
A digital **Cognitive Stimulation Program** developed and validated for frail older adults



**Physical Exercise Program** developed and validated for frail older adults



A **Web Platform** for health professionals and caregivers that hold the programs and its materials



Combined intervention  
for frail older adults

# What we developed?

**Combined intervention shows positive effects**



**decrease of depressive symptomatology**

**prevention of cognitive decline**

**reduced the risk of fall**

**improved physical capacities, namely balance and weight**

**promotion of independent living of frail older adults**

# What we developed?

**Autoblocking kit mechanism with electromechanic components for rolling walkers to prevent falls**



# About Nursing Leadership Challenges



MIND & GAIT

Nurses were able to contact with **different and specific scientific languages**

**Different concepts, processes, mechanisms, approaches and methodologies** demanded a constant adaptation and standardization

We found...

**Similar languages** between nurses, occupational therapists and exercise professionals

**Different and specific languages** for informatic and mechanical engineers

# Nursing leadership

Is a **guarantee of sustainability and expansion** of geriatric nursing care

Fosters the **sense of transdisciplinary partnerships** of future professionals from the different areas involved

Contributes for a view of **aging as a shared-value**

It influences everyday clinical practice and health policies to include more **non-pharmacologic methods** based on **multiprofessional collaborations**

# Acknowledgements



The current work is being presented on behalf of a research group and it is part of the MIND&GAIT Project - Promoting independent living in frail older adults by improving cognition and gait ability and using assistive products.



MISERICÓRDIA



DE ALCOBAÇA

# Funding

MIND&GAIT is a project in 02/SAICT/2016 reference number 023822 and is funded by the program COMPETE 2020 under the Scientific and Technological Research Support System, with an incentive of European Regional Development Fund (ERDF).



M I N D & G A I T

Cofinanciado por:



# References

- Apóstolo, J., Cooke, R., Bobrowicz-Campos, E., Santana, S., Marcucci, M., Cano, A., ... Holland, C. (2018). Effectiveness of interventions to prevent pre-frailty and frailty progression in older adults: a systematic review. *JB/ Database of Systematic Reviews and Implementation Reports*, 16(1), 140–232. doi: 10.11124/JBISRIR-2017-003382
- Cesari, M., Prince, M., Thiyagarajan, J. A., De Carvalho, I. A., Bernabei, R., Chan, P., ... Vellas, B. (2016). Frailty: An Emerging Public Health Priority. *Journal of the American Medical Directors Association*, 17(3), 188–192. doi:10.1016/j.jamda.2015.12.016
- Clegg, A., Young, J., Iliffe, S., Rikkert, M. O., & Rockwood, K. (2013). Frailty in elderly people. *The Lancet*, 381(9868), 752–762. doi:10.1016/S0140-6736(12)62167-9
- Donnelly, S., O'Brien, M., Begley, E., & Brennan, J. (2016). *“I’d prefer to stay at home but I don’t have a choice” Meeting Older People’s Preference for Care: Policy, but what about practice?*. Dublin: University College Dublin. Retrieved from: [https://www.ageaction.ie/sites/default/files/aa2c\\_asi2c\\_iasw\\_final\\_research\\_report-a4-report\\_lr\\_for\\_web\\_2.pdf](https://www.ageaction.ie/sites/default/files/aa2c_asi2c_iasw_final_research_report-a4-report_lr_for_web_2.pdf)
- European Commission (2015). *The action group on frailty story 2012-2014. Part of the European Innovation Partnership on Active and Healthy Ageing*: Brussels. Retrieved from: [https://ec.europa.eu/eip/ageing/sites/eipaha/files/library/54789bca5c003\\_storyofA3final.pdf](https://ec.europa.eu/eip/ageing/sites/eipaha/files/library/54789bca5c003_storyofA3final.pdf)
- European Commission (2016). *Action Group A3 Renovated Action Plan 2016-2018. Part of the European Innovation Partnership on Active and Healthy Ageing*: Brussels. Retrieved from: [https://ec.europa.eu/eip/ageing/sites/eipaha/files/library/renovated\\_action\\_plan\\_2016-2018\\_ag\\_a3.pdf](https://ec.europa.eu/eip/ageing/sites/eipaha/files/library/renovated_action_plan_2016-2018_ag_a3.pdf)
- Holm, A. L., & Severinsson, E. (2014). Effective nursing of older persons in the community – a systematic review. *Journal of Nursing Management*, 22, 211-224. doi: 10.1111/jonm.12076
- World Health Organization. (2017). *Global strategy and action plan on ageing and health*. Geneva. Retrieved from: <http://www.who.int/ageing/WHO-GSAP-2017.pdf?ua=1>



# CREATING HEALTHY WORK ENVIRONMENTS

Best practices for building healthy workplaces in clinical and academic settings

## THANK YOU!

João Apóstolo – [apostolo@esenfc.pt](mailto:apostolo@esenfc.pt)



MIND & GAIT

Cofinanciado por:



UNIÃO EUROPEIA  
Fundo Europeu  
de Desenvolvimento Regional