

# Cognitive and psychosocial aspects of frailty

# 1. Matia Foundation and Matia Institute



- Non-profitmaking organization with over 130 years' experience looking after old people and people with disabilities

Institution oriented services	Home oriented services
Gerontology and Day Care Centres	Sheltered Housing
Hospital Bermingham	Cohabitation units
IZA Centre for the Disabled	Integral Home Care Service
Orto-geriatric service	
Rehabilitation Centres	
MATIA Orienta Service	



- aims to generate interdisciplinary scientific knowledge to maximize personal autonomy, independence, health and quality of life for old people, disable people and their caregivers

## The team

- Currently Matia Institute employs 14 researchers (5PhDs) from multidisciplinary backgrounds
- Expertise on:
  - sociology,
  - person centred models of care,
  - friendliness,
  - accessibility,
  - active ageing,
  - psychosocial aspects of ageing and frailty,
  - dementia
  - development and validation of assessment tools and interventions.

## The team

- Coordinator: Dr. Javier Yanguas. PhD in Psychology. Currently he is the Chairman of the IAGG in Behavior and Social Sciences. He has been actively leading new intervention programmes for the attention to elder adults in neurorehabilitation and activities of daily living.
- Dr. Álvaro García. PhD in Psychology. He has worked as researcher in the Universidad Autonoma de Madrid and as collaborator in the Universidad Rey Juan Carlos. He is specialised in behavioural problems, neuroscience, evaluation instruments' validation and user-centred design.
- Dr. Nerea Galdona. PhD in Psychology. Her research lines consist of how the psychological aspects of elderly people, such as emotional intelligence and personality traits, influence their health-related quality of life, prevention of frailty and promotion of successful ageing.
- Miren Iturburu. Degree in Chemistry. At Matia she has coordinated various national and European projects and has broad experience conducting pilot trials with older people.

## 2. Cognitive frailty

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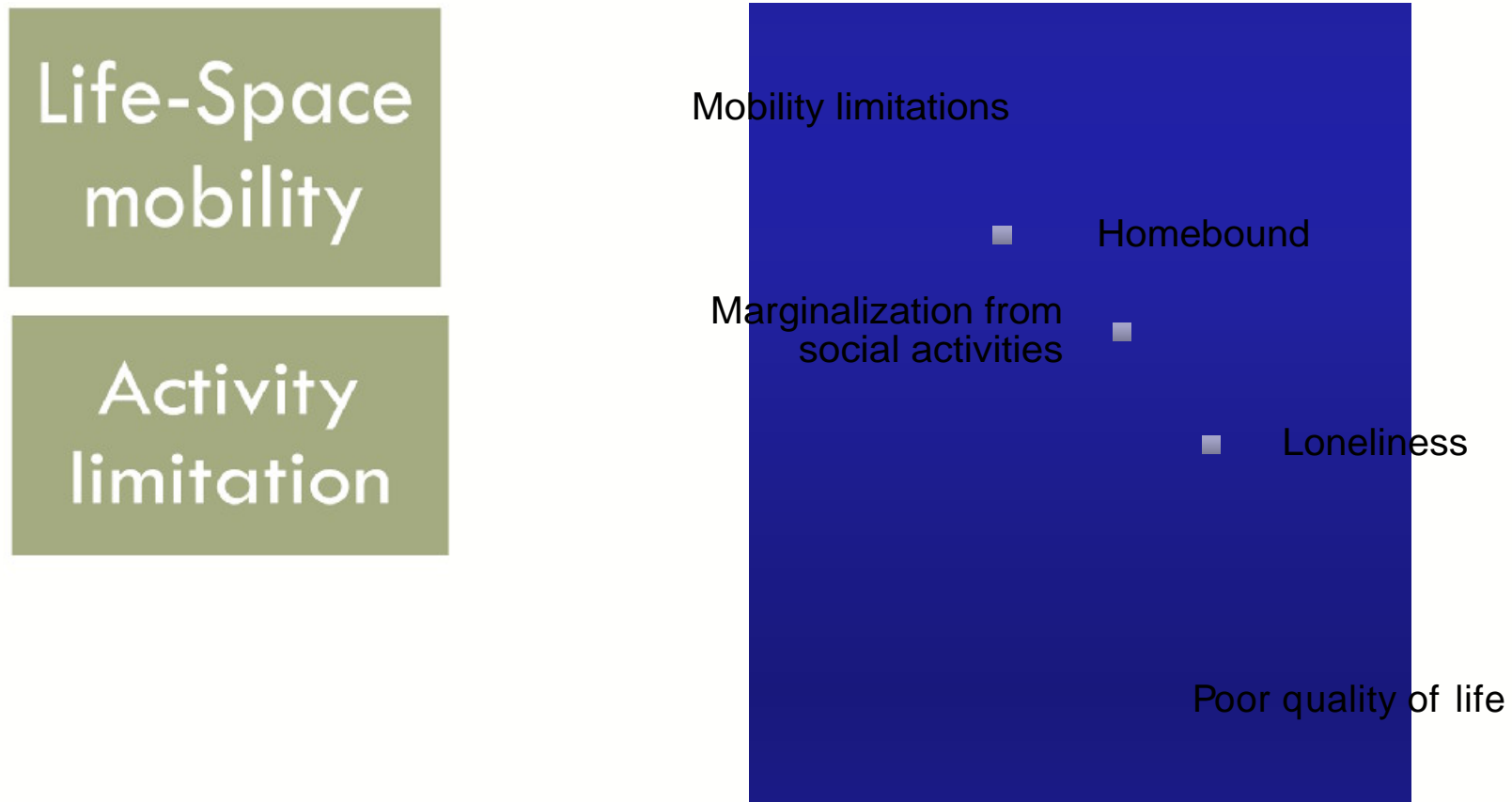
- Definition by International Consensus Group (IANA, IAGG) (Kelaiditi et al, 2013)

A syndrome in older adults with evidence of both physical frailty and cognitive impairment without a clinical diagnosis of AD or another dementia

- Both physical and cognitive frailty predict adverse health outcomes. Their co-occurrence is likely to identify people at particularly risk (Avila-Funes et al, 2009)

### 3. Frailty and activities of daily living, psychosocial aspects

- Behavioural precursors to the development of frailty



## 4. Dual task

- **Dual tasks** study whether a subject is able to cater to more than one stimulus at the same time and also how the various stimuli or attention between the tasks performed at once is distributed.

So the dual tasks consist of performing two or more activities simultaneously, given that performing two tasks at once, one can interfere with another.

**Gait assessments** can provide a window into the understanding of cognitive function and dysfunction and fall risk and frailty in older people (Montero-Odasso, et al, 2011, 2012)

## 5. The project

### Objectives:

- To develop and validate a new tool based on dual tasking for the integral assessment of the physical and cognitive frailty
- To gain new knowledge about the relationship between cognitive and physical frailty, taking into account psychosocial aspects in order
- To develop and implement innovative interventions dealing with:
  - Participation of the elderly, support and social network
  - Emotions, loneliness, anxiety



## 5. The project

- **Variables:**

- Principal variable: result of the comprehensive assessment tool of fragility in terms of speed differences observed in the runtime of the WS and TUG tests when combined with a cognitive task.

- Control variables:

- Sociodemographic
- Health status
- Functional physical ability
- Cognitive assessment: MEC (Mini Examen Cognitivo), MoCA (Montreal Cognitive Assessment)
- Affective condition: Goldberg Anxiety and Depression Scale
- Loneliness: UCLA Scale
- Health related Quality of Life: EuroQoL
- Categorization of frailty level: Frailty Index, Tilburg Frailty Indicator

## 5. The project

- Targeted group:

- Participants will be recruited in residential facilities of Matia Foundation, sheltered apartments, elderly associations and in primary care, service organizations of Osakidetza OSI Donostialdea and OSI Bidasoa.

- Future projects:

- Possible development of new technologies to measure frailty
- Development of new services to meet the needs of the frailty people

Thank you - Eskerrik asko - **Merci** - Gracias

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# MATIA

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