Health and Quality of life in residents of Elderly Care Centers in Lisbon and Oporto – GERIA Study

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CEDOC, *NOVA Medical School*, October 2013

Background

Average life expectancy is increasing and Portugal is one of the most aged countries. Elderly people are, on average, 20 h/day indoors, being vulnerable to health complications associated with indoor air quality (IAQ). About 5% of elderly people live in elderly care centers (ECC) having social and health challenging characteristics. Then, it is important to study the relation between IAQ and the prevalence of chronic diseases and respiratory problems in ECC residents.

Aim

To characterize the respondent population, resident in ECC in Lisbon and Porto, from sociodemographic, health and quality of life points of view.

Methods

- In the 1st wave of the longitudinal GERIA study, 53 ECC were randomized through the Social Charter (33 Lisbon and 20 Oporto).
- Residents, who consented to participate and were able to respond to a questionnaire, were evaluated from Sep. 2012 to April 2013.
- Self-rated health was assessed according to the National Health Survey.
- Health information was collected from respiratory health inquiry (BOLD) and individual processes information.
- Self-rated quality of life was evaluated with the question of the WHOQoL-BREF, from which the physic and psychological domains were analyzed.

Results

The sample was of 803 subjects, from a universe of 2110, 85% from Lisbon, 78% were women. Mean age was 84,1 ±7,1 years (65-105 years) and the median was 85 years.

Table 1 - **Sociodemographic Data (%)**

	Female	Male	Total
Gender	78	22	100
Marital status - no partner	88	69	84
Scholing - 1st or none	69	59	67
Blue collar workers	76	69	74
Residency time < 5 years	57	55	57

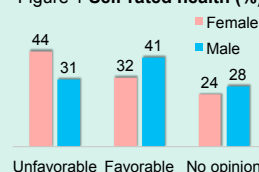Figure 1 **Self-rated health (%)**

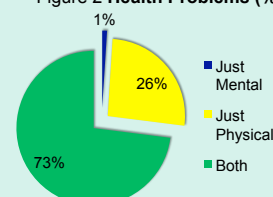Figure 2 **Health Problems (%)**
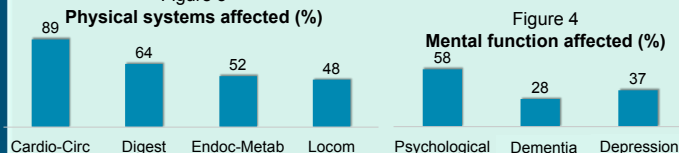

Figure 3 **Physical systems affected (%)**

Figure 4 **Mental function affected (%)**

Figure 5 **Self-rated quality of Life**
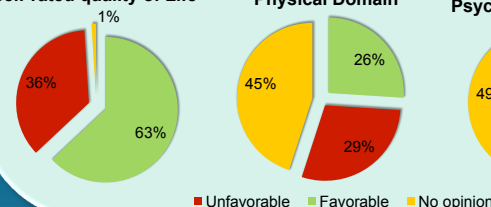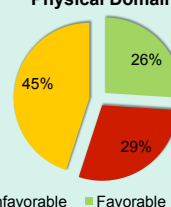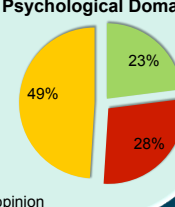

Figure 6 **Physical Domain**

Figure 7 **Psychological Domain**

Conclusion

Most respondents of the ECC were women, with more than 84 years old, had no partner, scarce schooling and were blue collar workers. Women self-rated health was mostly as unfavorable or not defined contrasting men that self-rated their health as favorable. Most of respondents had mental disorder and almost all had physical disorder, highlighting cardio-circulatory system. Self-rated quality of life was mostly considered favorable or not defined. Thus, considering self-rated health and quality of life, there were more favorable data in physical than in psychological domains. This reinforces the importance of considering health and quality of life components in a holistic approach of the person.

Next phase of GERIA:
Study the physical characteristics and IAQ of 20 ECC and their residents respiratory health resorting to clinical analyses as exhaled breath condensate, nasopharyngeal swabs and spirometry exams.

Innovating idea:
To improve our project is increase the respiratory health evaluation using a **breath thermometer** (e.g.: X-Halo®) which could give us important and sensible information about a new indicator: bronchial inflammation.

This information, along with the environmental characterization of the ECC, respiratory health inquiries and individual processes information already collected during this phase, will allow to **understand the roll between IAQ and the quality of life and health of ECC residents**.

Produce **guidelines on remedial measures and recommendations** regarding IAQ and ventilation for ECC already built and also for future ECC to build, **improving IAQ and therefore the health and quality of life** of ECC residents.

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