

# OPP: HEALTH & SELF ESTEEM

## Food demands for the health and well-being of the elderly: Contributions of gerontechnology to aging-in-place

K. B. Agostinho, R. C. S. Kuroishi, C. S. S. Castro

**Purpose** Eating is a central daily activity in our lives and changes arising from the aging process can alter our abilities to choose food, prepare meals, use equipment, use meal and food purchase and delivery services, among other tasks involved in these activities. To describe the demands of elderly people in relation to food as a component of health and well-being for Aging-in-Place and the possible contributions of gerontechnology in this context.

**Method** Exploratory, cross-sectional, qualitative and quantitative study. 119 elderly people living in rural and urban areas of cities in the interior of São Paulo, Brazil, were interviewed. In-depth structured interview was carried out. The study question was “What are the needs related to health and well-being that may influence your aging in place?” Thematic content analysis was used. **Results and Discussion** Participants were men (23.1%) and women (76.9%), with an average age of 67.7 years, married (51.1%), widowed (24.5%), older than 10 years of study (59.1%), 45.7% retired and 40.4% continue working. Of these, 75 have chronic health conditions, such as metabolic, orthopedic and neuropsychiatric changes, among others. As for what influences aging-in-place, food, physical activity, sleep and rest, leisure, financial health and housing stand out as the main aspects. Of the total number of interviewees, 65 participants mentioned concerns related to food as a health and well-being priority. The priorities for aging-in-place, related to food, refer to the adoption of a healthy, rich and adequate diet for their current health conditions; maintain autonomy and independence (have mobility to go to the market, autonomy to choose food, do your own shopping and prepare meals); have a functional environment without architectural barriers and with adequate equipment to compensate for the losses of aging and have financial conditions that make such changes viable. These results highlight the potential of gerontechnology to support independent living and compensate for the changes of aging with a focus on the 5Ps – person, products, specialized personnel, services, policies. The growing demands for care for the elderly population have expanded the field of gerontechnology with a focus on food, bringing recent published studies relating technology-food, such as the use of sensory tests and facilitation of food choices, recipes and services (Jung et al., 2022 ); robots to support daily life and assist with meals (Orso, Vierl & Gamberini, 2018); usability of assistive technology resources for dietary support, food intake monitoring systems for nutritional management (Lai, Chao, 2014), or even assistance solutions, based on Information and Communication Technologies for safe, complex and cognitively demanding tasks (Grossi et al., 2014); recognizing the importance of nutrition in the social and cultural lives of the elderly and gerontechnological support in healthy aging that impacts the present and future. Identifying the demands and priorities of health, nutrition and well-being of the elderly and those involved in Aging-in-Place actions contributes to the field of gerontechnology in its objective of promoting independent living and quality of life in old age and expansion of the longevity ecosystem.

### References

- Govindaraju, T., Owen, A. J., Mccaffrey, T. (2022). The past, present and future influences of diet among older adults – A scoping review. *Aging Research Reviews*, 77, 101600. <https://doi.org/10.1016/j.arr.2022.101600>
- Grossi, F. et al. (2014). Senior-friendly kitchen activity: The FOOD Project. *Gerontechnology*, 13(2), 200-200. <https://doi.org/10.4017/gt.2014.13.02.349.00>
- Kim, J. S. et al. (2022). A study on the scooping and serving Korean food using meal assistance robot. *Gerontechnology*, 21(s), 1-1. <https://doi.org/10.4017/gt.2022.21.s.650.opp3>
- Lai, H. F., & Chao, U. (2014). A food intake monitoring system to provide nutritional management for elderly people. *Gerontechnology*, 13(2), 227. <https://doi.org/10.4017/gt.2014.13.02.338.00>
- Lim, H. S. et al. (2022). Technology applied recipe development to increase fruits intake of the elderlies with decreased chewing and swallowing function. *Gerontechnology*, 21(s), 3-3. Available: <https://doi.org/10.4017/gt.2022.21.s.774.3.sp7>
- Macdonald, A. S., Teal, G., Moynihan, P. J. (2010). Redesigning food service for vulnerable older adult hospital patients. *Gerontechnology*, 9(2), 306-306. <https://doi.org/10.4017/GT.2010.09.02.210.00>
- Orso, V., Vierl F., Gamberini, L. (2018). Elderly-centred guidelines for mHealth apps for food intake. *Gerontechnology*, 17(s), 185-185. <https://doi.org/10.4017/gt.2018.17.s.180.00>

**Keywords:** aging-in-place, healthy nutrition, health, well-being

**Affiliation:** Department of Health Sciences, Interunit Postgraduate Program in Bioengineering, University of São Paulo, Brazil.

**Email:** karla.agostinho@usp.br; **ORCID iDs:** (0009-0008-1718-8026); (0000-0001-9877-7739)