

Centre of Expertise in Longevity and Long-term care
Faculty of Humanities, Charles University of Prague

2022 Annual Report



December 2022

Ongoing research projects

RECETAS - Re-imagining Environments for Connection and Engagement: Testing Actions for Social Prescribing in Natural Spaces

Re-imagining Environments for Connection and Engagement: Testing Actions for Social Prescribing in Natural Spaces (RECETAS) will address loneliness, a modifiable health condition that is known to shorten one's lifespan and may be as dangerous to one's health as smoking or obesity. In Europe alone, and before COVID-19 pandemic, over 75 million European adults reported meeting with family and friends at most once per month and 30 million European adults frequently felt lonely. Loneliness knows no geographic, economic, cultural, and social boundaries and affects all age groups. For urban dwellers, nearby nature, with social structures, can improve health and mental well-being and reduce loneliness. Even under the extraordinary circumstances of COVID-19, people need time in nature for its healing benefits and its role in allowing people to interact in nature. Investments in nature-based solutions (NBS) and green infrastructure (GI) that address rapid urbanization and its adverse consequences on environmental systems in our cities, can be harnessed for health and well-being even in times of health emergencies. RECETAS explores loneliness through a transdisciplinary lens, integrating social, behavioral, health, and natural sciences, and is grounded in participatory principles. It will use randomized controlled trials (RCT) and other epidemiologic, anthropological and health economic methods to test socially- and culturally-innovative nature-based social prescribing (NBSP) in six cities in Europe, Latin America, and Australia. The approach aims to improve upon real-world policy and practice to reduce loneliness by connecting people experiencing loneliness with helping professionals and extensive investments in NBS and GI, while alleviating pressures on stressed health care systems. If successful, it will systematically reduce loneliness, promote and sustain vibrant, socially-connected communities, and reduce health inequalities by connecting to nature in meaningful ways.

Effect of exercise-education program inspired by developmental kinesiology on functional and psycho-social status in older adults and evaluation of its adherence and sustainability

Registration Number: NU20-09-00306

Czech Health Research Council

The aim of the project is to verify an impact of a new exercise-education program for older adults and to evaluate its adherence and sustainability. The exercise is inspired by developmental kinesiology - goes back to the beginning of motor development and naturally improves mobility, stability and strength (foundations of human movement). The aim is to help seniors to learn how to take care of their body so it can function well and

support active ageing and accept responsibility for their ageing. 90 men/women over 55 will be randomly divided into two intervention and one control groups. The intervention will last 19 months. Data will be collected in four stages and will focus on both quantitative and qualitative indicators. We expect the results to reveal the benefits of this unique home exercise and to improve understanding in this area in a broader context. Such knowledge is important for successful implementation of effective and sustainable physical activity programs for a wide range of older adults that address challenges associated with ageing population.

This project responds to the priorities of applied medical research program for years and to contribute to a long-term solution of challenges associated with both aging population and prevention of civilization diseases affecting course and quality of ageing. Despite the evidence suggesting that regular physical activity in late life is crucial, most seniors remain inactive. Optimum intervention programs seem to be still found and recommendations appear to be discouraging for most of older adults. For instance, the WHO recommends 150-300 minutes of moderate physical activity per week plus strength, stability and mobility exercise. This is a relatively intense program that can be difficult to adhere to. It is necessary to find more individual approaches respecting not only current health status and physical functioning, but also preferences, possibilities and goals of each senior. This unique intervention was designed to address this gap. We expect it will help older adults to maintain functional fitness to confidently perform leisure and/or self-service activities and to experience ageing worth living which is important from both personal and society's point of view. With respect to demographical changes, health and social care systems would become unsustainable without preventive measures accepted by (not only) older adults. Actual aims:

- to demonstrate a short-term and long-term impact of this unique home exercise on components of functional status among community-dwelling older adults
- to define how the expected improvement will further affect psycho-social indicators
- to evaluate sustainability and other health, social and personal consequences
- to propose guidelines how to approach physical activity in late life and how to plan acceptable and sustainable programs
- only such programs can effectively prevent both physical and mental implications and only such programs can help older adults to fully enjoy the final stage of life.

Long-term care for patients with dementia, analysis of the current situation in the Czech Republic and Europe, possibilities of transformation of institutional care regarding quality of life, quality of care and resource use

Registration Number: NV18-09-00587

Czech Health Research Council (Agentura pro zdravotnický výzkum České republiky)

Project proposal reflects, in the field of long-term care of persons with dementia, the main goal of the National programme of applied research "to assure internationally comparable research for better health of our population and better response to needs of health care system in the Czech Republic". Long-term care of persons with dementia has been internationally recognized as a research priority, this attention has not attracted in the Czech Republic. The goal of the project is to analyze current situation in long-term care of persons with dementia in the Czech Republic, provide overview on this topic and comparison with other European countries. Methods: mixed method research in long-term care institutions (data about patients, care quality, environment, team interactions, stakeholders roles etc.)

Distribution system for crisis situations

This project creates an ethical and legally robust digital system for the distribution of strategic materials during crises. In peaceful times it will monitor supply and demand and provide an early warning of an impending crisis. The system will be based on algorithmic game theory and optimization, and will support such independent behavior of actors, that will be beneficial for a wide range of actors and ethical, at the same time. The advantages of the new system will be societal happiness, protection of small actors, support of cooperation, prevention of unbearable price increases and protection of both, producers and sellers. The legal framework of the operation and of implementation of the ethical rules, and protection of all data will also be addressed.

Training and Education Activities

"Longevity studies" – 4-year postgraduate program designed to appeal to all students who successfully completed master degree in broad range of specialties and who want to establish foundation in issues of aging and apply it in their clinical or theoretical careers. The aim of the course is to help to address multidimensional and complex nature of lengthening human lifespan from various perspectives. We are very proud to pronounce that this is the first and so far only postgraduate program in the Czech Republic that focuses on such important and at the same time challenging topic. In 2022, we celebrated new graduates as well as new students – in 2022: 12 students and 6 graduates.

New collaboration

Our Department of Longevity Studies and CELLO cooperates with the Special Interest Group on Long-Term Care and Nursing Homes SIG LTC NH of the European Geriatric Medicine Society (EuGMS). EuGMS is an international organization that deals not only with research in the field of geriatrics and gerontology, but also with the application of new knowledge into practice. Martina Paulíková and Iva Holmerová take part in the SIG LTC NH online meeting every month, where together with specialists from European countries they solve the

current problems of long-term care medicine and also deal with the issue of training doctors in long-term and post-acute care.

We also collaborate with the LTC- COVID initiative, which monitors and evaluates the impact of the COVID-19 disease on seniors and long-term care patients. We have also expanded cooperation with the Department of Health Policy, the London School of Economics and Political Science, and are participating in a report on the situation of long-term care in the Czech Republic. As part of ELTECA - Exchange of Experience in Long-Term Care - we cooperate with other people interested in long-term care, especially in the countries of Central and Eastern Europe.

New publications

DOSTÁLOVÁ, Vladimíra - BÁRTOVÁ, Alžběta - BLÁHOVÁ, Hana - HOLMEROVÁ, Iva. The experiences and needs of frail older people receiving home health care: A qualitative study. *International Journal of Older People Nursing*. 2022, **17**(1), e12418. ISSN 1748-3735. DOI 10.1111/opn.12418.

HOLMEROVÁ, Iva - ŠTOLFA, Josef - RUSINA, Robert. Diagnostika a terapie demencí - stručný praktický návod. *Svět praktické medicíny*. 2022, **2022**(2), 50-55. ISSN 2694-8516.

SHIELLS, Kate, et al. The role of Electronic Patient Records (EPR) for planning and delivering dementia care in nursing homes. In: *Improving the Lives of People with Dementia through Technology*. Routledge, 2022. p. 184-197.

AALTO, Ulla L., et al. COVID-19 pandemic and mortality in nursing homes across USA and Europe up to October 2021. *European Geriatric Medicine*, 2022, 1-5.

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