



RaDAR 2025 Online Summit

Green Care Laurentians Cultivating well-being and cognitive health through nature and gardening

Partners :



Les Serres de Clara

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Background

- Quebec's population is aging rapidly, leading to a significant rise in neurocognitive disorders (NCDs).¹
- In rural regions, access to respite and stimulation services is extremely limited. That leaves caregivers and community organizations overwhelmed with requests.
- Current interventions lack diversity, especially nature-based or outdoor activities.
- Social inactivity is associated with behavioral and psychological symptoms such as agitation, depression, and apathy.^{2, 3}
- Cognitive stimulation of the senses through physical activity^{4, 5} and social interaction⁶ has been shown to have an impact on the risk of developing the disease and to slow its progression by maintaining dynamic cognitive functions⁷, but there is still gaps in research to fully understand the impact of this approach.^{8, 9}

" By 2050, 1.7 million Canadians will be living with a neurocognitive disorder, nearly three times more than in 2020.**"**¹

Green Care Laurentians

- Co-created in partnership with Maison Aloïs (day respite for people with NCDs), and Les Serres de Clara (community gardens for social inclusion), 20 participants from Maison Aloïs will attend weekly Green Care sessions over 17 weeks.
- Activities include gardening, planting, cooking, and sensory experiences in a natural setting.
- Intergenerational connections: pairing participants with youth volunteers for mentorship and inclusion.
- Maison Aloïs seeks to diversify its therapeutic activities by offering Green Care to better meet participants' needs and increase its respite capacity.
- Les Serres de Clara seeks evidence-based validation of the impacts of gardening on participants' well-being to better assess and refine their social and therapeutic interventions.



What is Green Care?

“ Green Care is an alternative form of therapy that uses the biotic (living) and abiotic (non-living) components of nature to promote human health and well-being.^{10, 11} ”

It aims to evaluate/test/implement a relationship between humans, nature, and animals for social and therapeutic purposes.



Plan des Serres de Clara

Review of the literature

- Green Care interventions have demonstrated positive effects on people living with NCDs in terms of engagement, social interactions, mental and physical well-being^{12, 13, 14, 15}, as well as reducing agitation in people with dementia¹⁵, empowerment to take positive risks and identity reinforcement¹⁴.
- Gaps identified:

01

Design

- Many observational design and few pre-post or quasi-experimental design

02

Population

- Few studies on people with major neurocognitive disorders (MNCDS) living in the community
- Few studies on caregivers, or professionals.

03

Outcomes

- Few studies on the effects on dementia behavioral and psychological symptoms (BPSD), sleep quality and quality of life

Objectives

1. Co-create, implement, and evaluate a pilot Green Care project offering respite care for people living with MNCDs and their caregivers in the Laurentians.
2. Test human-nature relationships and the impact of Green Care on people living with MND from a health/psychology and socio-anthropology perspective and generate knowledge about this therapeutic approach.
3. Disseminate this model and expand the range of respite and support services available to caregivers with more diverse activities for people with MNCDs.



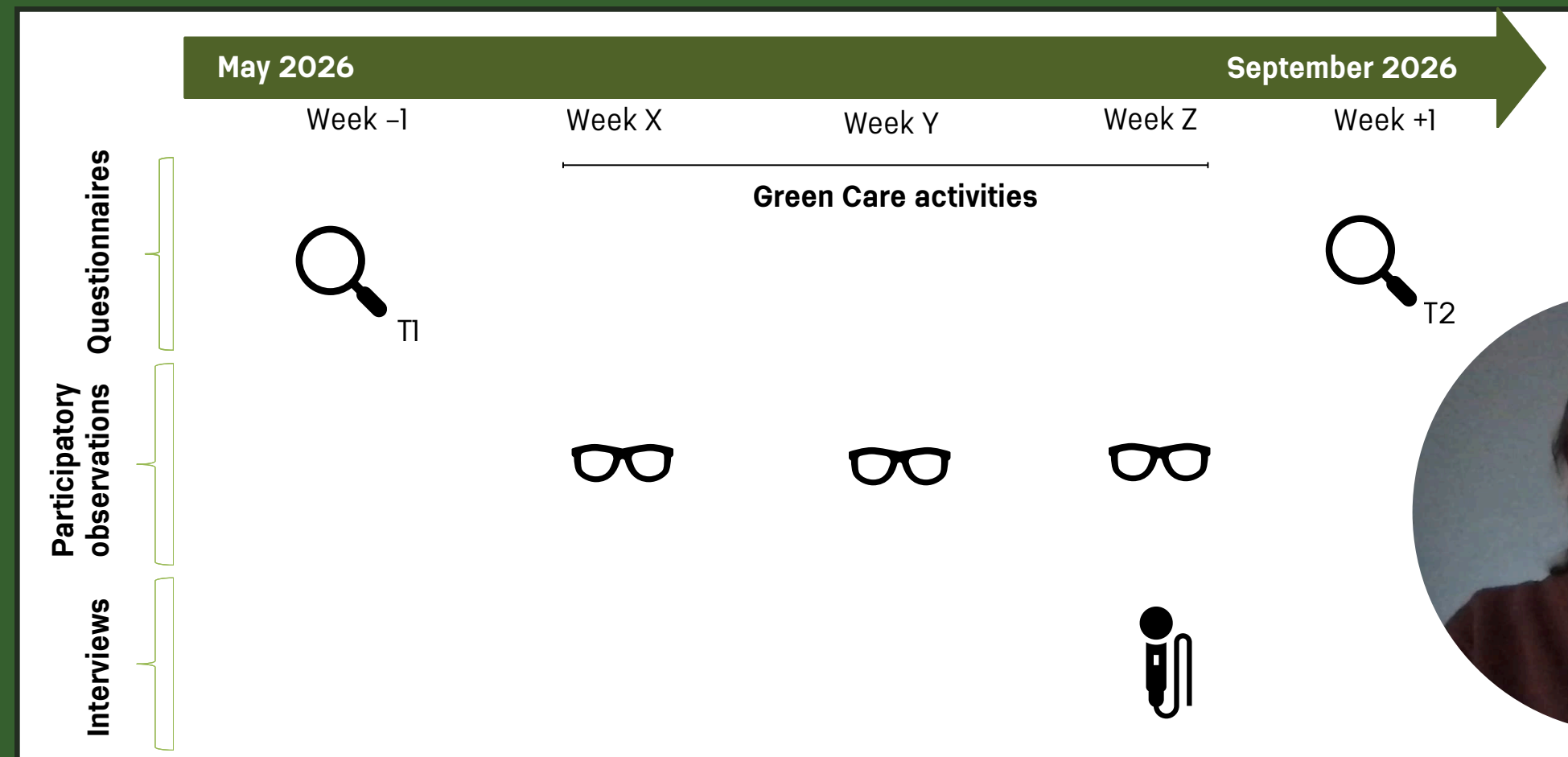
Mixed methods design

Quantitative methods : Pre-post questionnaires to collect sociodemographic data and assess sleep quality, neuropsychiatric symptoms, and the burden on caregivers

- 20 participants in Green Care activities with MNCDs and their caregivers (intervention group), as well as 20 seniors with MNCDs and their caregivers who did not participate in Green Care activities (control group).

Qualitative methods : 1) participatory observations to analyze social interactions and interactions with nature ; 2) semi-structured interviews

- 20 participants in Green Care activities with MNCDs and their caregivers, 1-3 workers from Les Serres de Clara and 5 practitioners from Maison Aloïs



Expected results

- Obtaining mixed data to evaluate the effects of Green Care on people living with major neurocognitive disorders, their caregivers, and practitioners, as well as the conditions necessary for wider dissemination.
- Transfer of knowledge and experience (toolkit, website, presentations in the field, articles, scientific conferences)
- Strengthened community partnerships between care, agricultural organizations and research with the creation of a network to expand this pilot project to other territories
- Raising awareness among various stakeholders of the need for diversified respite/care services in rural areas in the context of an aging population (municipal and regional elected officials, community organizations, etc.)
- Potential for expanding respite/care services in rural areas

Co-developed based on local needs, this project addresses priority issues: the aging population, the scarcity of respite/care services in rural areas, the need for a variety of forms of stimulation to meet needs, and keeping seniors in their communities.



References

1. Société Alzheimer du Canada. (2022). L'ÉTUDE MARQUANTE : QUELLE DIRECTION?. Société Alzheimer du Canada, 2022
2. Samus Q.M., Rosenblatt A., Steele C., Baker A., Harper M., Brandt J., Mayer L., Rabins P.V., Lyketsos C.G. 2005. The association of neuropsychiatric symptoms and environment with quality of life in assisted living residents with dementia. *Gerontologist*. Oct;45 Spec No 1(1):pp.19–26. doi:10.1093/geront/45.suppl_1.19. PMID: 16230746.
3. Scherder E.J., Bogen T., Eggermont L.H., Hamers J.P., Swaab D.F. 2010. The more physical inactivity, the more agitation in dementia. *Int Psychogeriatr*. Dec;22(8):1203–8. doi: 10.1017/S1041610210001493. Epub 2010 Sep 3. PMID: 20813077.
4. Blondell, S.J., Hammersley–Mather, R. & Veerman, J.L. 2014. Does physical activity prevent cognitive decline and dementia?: A systematic review and meta-analysis of longitudinal studies. *BMC Public Health* 14(510). [En ligne: <https://doi.org/10.1186/1471-2458-14-510>]
5. Ahlskog E., Y. E. Geda, N. R. Graff–Radford, R. C. Petersen. 2011. Physical Exercise as a Preventive or Disease–Modifying Treatment of Dementia and Brain Aging, *Mayo Clinic Proceedings*, 86(9), pp. 876–884, <https://doi.org/10.4065/mcp.2011.0252>
6. Kelly, M.E., Duff, H., Kelly, S. & al. 2017. The impact of social activities, social networks, social support and social relationships on the cognitive functioning of healthy older adults: a systematic review. *Syst Rev*. 6(259). <https://doi.org/10.1186/s13643-017-0632-2>
7. Institut National de la Santé Publique du Québec. 2021. La santé cognitive des personnes âgées : pourquoi et comment la préserver?, 32p. [En ligne: <https://www.inspq.qc.ca/sites/default/files/publications/2786-sante-cognitive-personnes-aiees.pdf>]
8. García–Llorente M., R. Rubio–Olivar & I. Gutierrez–Briceño. 2018. Farming for Life Quality and Sustainability: A Literature Review of Green Care Research Trends in Europe. *International Journal of Environmental Research and Public Health*, Review, 15.
9. Murray J., N. Wickramasekera, M. Elings, R. Bragg, C. Brennan, Z. Richardson, J. Wright, M. G. Llorente, J. Cade, D. Shickle, S. Tubeuf, & H. Elsey. 2019. The impact of care farms on quality of life, depression and anxiety among different population groups: A systematic review, *Campbell Systematic Reviews*.
10. Sempik, J., Hine, R. and Wilcox, D. eds. 2010. *Green Care: A Conceptual Framework, A Report of the Working Group on the Health Benefits of Green Care*, COST Action 866, Green Care in Agriculture, Loughborough: Centre for Child and Family Research, Loughborough University.

References

11. Salomon R. E. et al. 2018. "Green care as psychosocial intervention for depressive symptoms: what might be the key ingredients?," *Journal of the American Psychiatric Nurses Association*, vol. 24 no. 3, pp. 199–208, DOI: 10.1177/1078390317723710
12. Scott, T. L., Jao, Y. L., Tulloch, K., Yates, E., Kenward, O., & Pachana, N. A. (2022). Well-being benefits of horticulture-based activities for community dwelling people with dementia: A systematic review. *International journal of environmental research and public health*, 19(17), 10523. DOI: 10.3390/ijerph191710523
13. Collins, R., Owen, S., Opdebeeck, C., Ledingham, K., Connell, J., Quinn, C., Page, S. et Clare, L. (2023). Provision of Outdoor Nature-Based Activity for Older People with Cognitive Impairment: A Scoping Review from the ENLIVEN Project. *Health & Social Care in the Community*, 2023(1). <https://doi.org/10.1155/2023/4574072>
14. Mmako, N. J., Courtney-Pratt, H., & Marsh, P. (2020). Green spaces, dementia and a meaningful life in the community: A mixed studies review. *Health & Place*, 63, 102344. DOI: 10.1016/j.healthplace.2020.102344
15. Lu, L. C., Lan, S. H., Hsieh, Y. P., Yen, Y. Y., Chen, J. C., & Lan, S. J. (2020). Horticultural Therapy in Patients With Dementia: A Systematic Review and Meta-Analysis. *American journal of Alzheimer's disease and other dementias*, 35. <https://doi.org/10.1177/1533317519883498>