



Hello all,

Welcome to Coherent Breathing®, Volume 3, Issue 10: *The Breathing Toolkit: Using Coherent Breathing to Lower Stress and Reduce Anxiety*, a Healthcare Excellence Canada and Alberta Health Services initiative.

Created by Translating Research in Elder Care (TREC), and funded by Healthcare Excellence Canada, The Breathing Toolkit was developed at the height of the COVID-19 pandemic for use by Canadian healthcare workers serving patients in long term care facilities in Alberta. It is the outcome of a study to evaluate the effects of Coherent Breathing on a population of long term care (LTC) employees during the period February to September 2022. The study itself: *Workforce resilience supporting staff in managing stress: A coherent breathing intervention for the long-term care workforce*, was published in *Journal of the American Geriatrics Society*, February, 2025. It is the first known study of its type involving LTC facilities and their employees. The Healthcare Excellence Canada website: *The Breathing Toolkit* was also published openly in early 2025.

## Breathing Toolkit

Do you sometimes feel stressed? One way to help with stress is through a type of breathing called **Coherent Breathing**. Coherent breathing is deliberate and focused – it balances the nervous system and promotes relaxation.

This toolkit was developed by the **Translating Research in Elder Care (TREC)** research program. We did a breathing study with care staff in Long-Term Care (LTC) homes during COVID that showed positive results, including:

- Lower Stress
- Less Anxiety
- Improved Sleep
- Improved Self-care

[Explore these links to learn more!](#)



Figure 1: Breathing Toolkit developed by the Translating Research in Elder Care (TREC) research program. (With permission.)

Conducted in 31 long-term care facilities in Alberta, this article refers to long-term care in Canada’s national and provincial medical system, but many of the factors apply universally to the challenges of long-term care. Due to its nature, long-term care is a demanding healthcare provider role and responsibility. Many of the residents/patients are approaching end of life, have dementia, and require constant monitoring and attention. This initiative was undertaken in 2021 when complications regarding in-person care were compounded by COVID-19 with its uncertainties regarding transmission, safeguards, and protocols, COVID-19 resulting in increased resident deaths, resident isolation, and caregiver requirements for personal protective equipment. Stress levels among providers, 90% of whom are nurses and aides, reaching untenable levels – reporting increased levels of anxiety, depression, and insomnia. Consistent with the care aide population in Canada, the study population was largely middle-aged immigrant women who spoke English as a second language.

LTC staff emphasized the imperative for an effective means of mitigating the unarguable levels of stress associated with caregiver responsibilities under these conditions, now involving short-staffing, longer hours, and increased workloads, this along with increased agitation and aggression by residents. Program managers and policy makers, while supportive, were looking for something that could be implemented quickly and cost-effectively. Coherent Breathing and HeartMath emWave (heart rate variability biofeedback) were chosen because there is documented clinical evidence and history of both aiding/mitigating stress, anxiety, depression, and enhancing one’s overall sense of well-being. The study population was divided into two groups: Comprehensive and Basic. The comprehensive group employed both Coherent Breathing and Heartmath emWave biofeedback. The basic group employed Coherent Breathing alone. Coherent Breathing was used at 4, 5, and 6 breaths per minute based on personal comfort and preference, where during group breathing circles, individuals would simply count-off their own equal periods of inhalation and exhalation. Participants were requested to work up to breathing for 8-10 minutes per day for 8 weeks in a row.

The study recruited 686 participants, 359 in the comprehensive group and 327 in the basic group. Of 686, 254 completed baseline measures, intervention, and post-intervention measures for a completion rate of 37%. Of the 254 that completed the program, 126 were aides, 98 were nurses, and 30 were managers. The pre vs. post results demonstrated statistically significant reductions in stress, anxiety, depression, insomnia, and resilience. It found no significant differences between comprehensive and basic groups. Please see page 2 for references and notes.

Stephen Elliott, President & Life Scientist, COHERENCE

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## References:

- 1) Workforce resilience supporting staff in managing stress: A coherent breathing intervention for the long-term care workforce, B. Degraeves RN, H. Titley PhD, Y. Duan, PhD., T. Thornem MN-NP, S. Banerjee, M.D., L. Ginsburg, PhD., J. Salma, PhD., K. Hegadoren, PhD., C. Angel, PhD., J. Keefe, PhD., R. Lanius, M.D., PhD., C. Estabrooks, PhD., *Journal of the American Geriatrics Society*, DOI: 10.1111/jgs.18727, February, 2025.
- 2) Healthcare Excellence Canada, The Breathing Toolkit: Using Coherent Breathing to Lower Stress and Reduce Anxiety: <https://www.healthcareexcellence.ca/en/resources/trec-breathing-toolkit/>
- 3) Breathing Toolkit by TREC: <https://www.trecbreathingtoolkit.com/>
- 4) Healthcare Excellence Canada, Workforce Well-Being Through Coherent Breathing, August 27, 2024: [https://www.youtube.com/watch?v=\\_dGZ7s0n9M8](https://www.youtube.com/watch?v=_dGZ7s0n9M8)
- 5) TREC URL: [trecresearch.ca](http://trecresearch.ca)

## Notes:

I believe that everything I've written on page 1 has been directly mined from the references above. I encourage readers to explore these references.