

A digital reading intervention for reducing apathy among rural older adults with and without dementia: A mixed-methods pilot study

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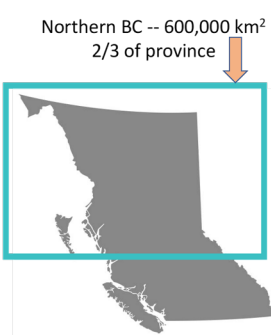


Background

- Apathy is a prevalent and prognostically important neuropsychiatric symptom associated with accelerated cognitive decline, functional disability, and reduced quality of life in older adults
- Despite its clinical relevance, apathy remains under-treated, particularly in rural and underserved communities where access to non-pharmacological interventions is limited.
- We hypothesized that a structured, socially embedded digital reading intervention would lead to clinically meaningful reductions in apathy and offer a scalable model for community-based dementia care.

Objective

To evaluate the impact of a digital reading intervention on apathy among rural community dwelling older adult with and without dementia and explore mechanisms of change.



Methodology

DESIGN | Single-group, pre-post mixed-methods pilot study

SETTING | Three rural communities in Northern British Columbia, Canada

PARTICIPANTS |

- N = 28
- 89% women; mean age = 72.8 years (range 60–86)
- 11% living with mild dementia

INTERVENTION | 8-week eBook Club

- Weekly in-person sessions with group discussion
- eReaders provided
- Independent reading at participants' own pace

OUTCOME MEASURE | Apathy assessed using the 3-item apathy subscale of the Geriatric Depression Scale (GDS-3A)

QUALITATIVE COMPONENT | Semi-structured interviews with participants who had apathy at baseline (n = 15)

Study Procedure

WEEK 1

Welcome & Orientation

- Introductions
- Program overview
- Choose books
- Baseline assessment (Apathy: GDS-3A)

WEEK 2

Read & Connect

- Weekly reading assignment + group discussion

WEEK 3

Share & Reflect

- Discuss ideas, characters, and personal connections

WEEK 4

Explore & Engage

- Continue reading + meaningful conversations

WEEK 5

Connect & Support

- Strengthen bonds, share experiences, support each other

WEEK 6

Read & Discuss

- Deeper discussions around weekly readings

WEEK 7

Reflect & Inspire

- Reflect on themes, insights, and takeaways

WEEK 8

Celebrate & Look Ahead

- Program wrap-up & post-assessment (Apathy: GDS-3A)

Kobo eReaders provided to all participants

Fiction books selected based on participants' interests and preferences

Facilitated in-person group discussions (45–60 minutes) weekly

Independent reading with reading trackers between sessions

Key Message

Digital reading interventions have the potential to become an accessible, scalable, and person-centred strategy for reducing apathy and supporting healthy aging in rural communities.

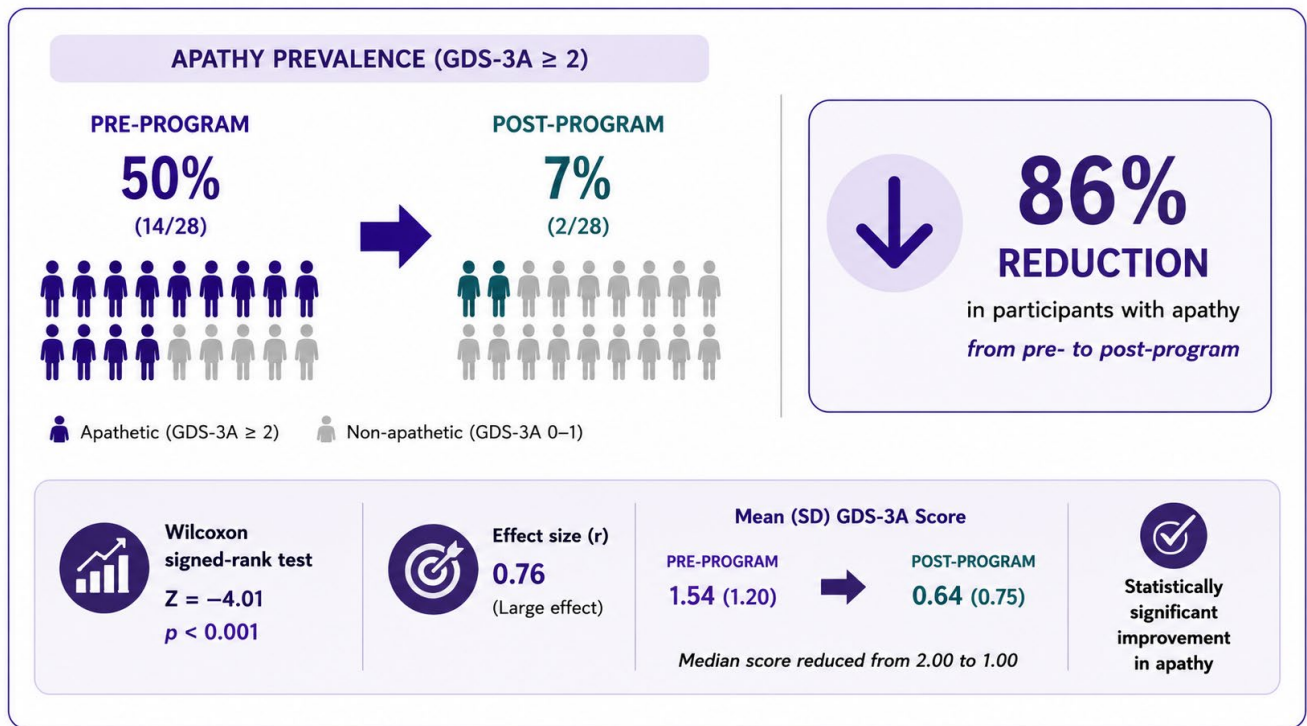
Result

Sample Characteristics

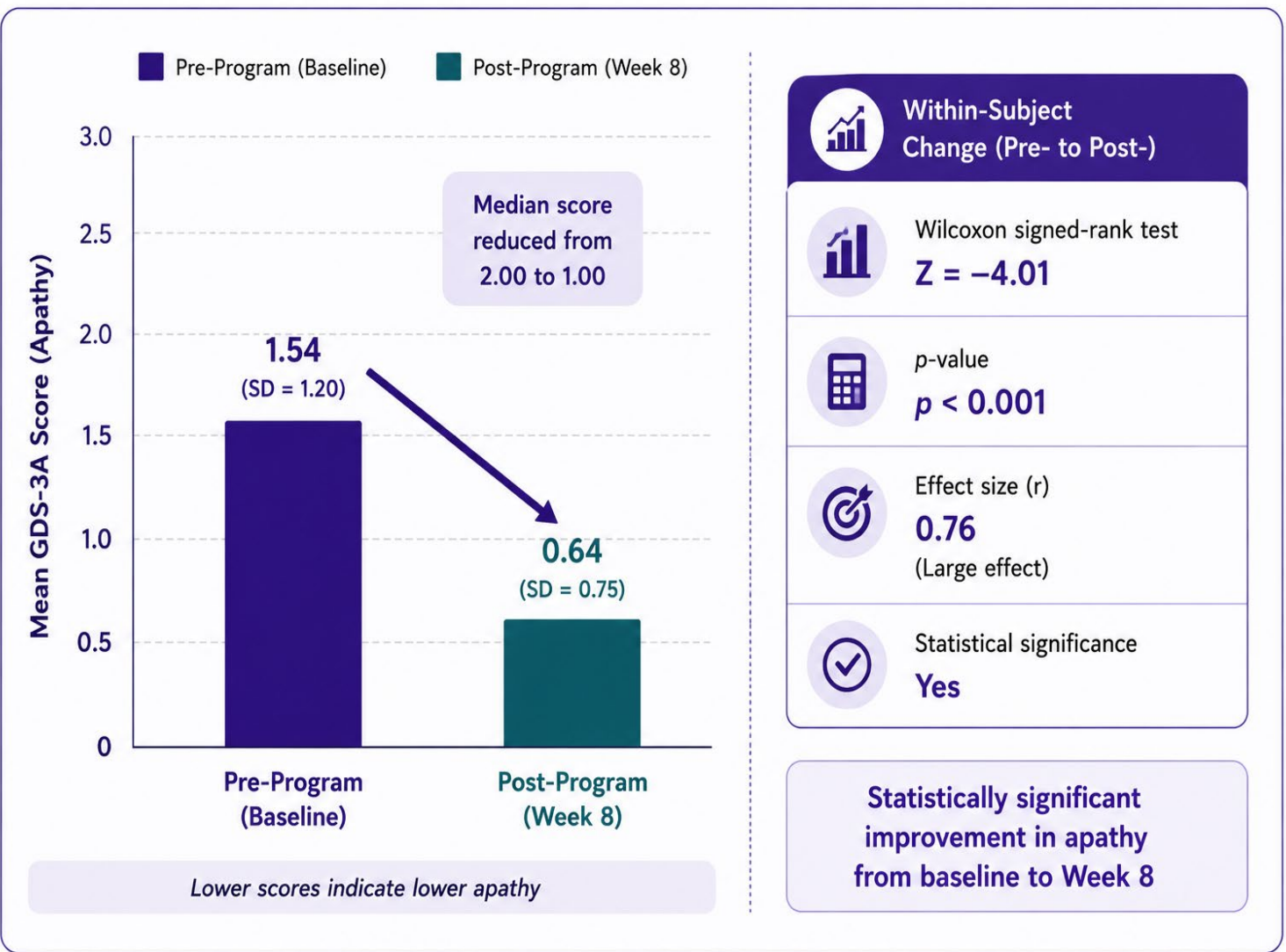
Characteristics	Study Population (N = 28) n (%) or Mean (SD)
Age (years)	
60–80	24 (85.7%)
≥81	4 (14.3%)
Mean age (SD)	72.8 (6.5)
Age range	60–86
Sex	
Women	25 (89.3%)
Men	3 (10.7%)
Education	
High school	14 (50.0%)
College/University	13 (46.4%)
Other	1 (3.6%)
Marital status	
Married	16 (57.1%)
Not married*	12 (42.9%)
Dementia diagnosis	
Yes	3 (10.7%)
No	25 (89.3%)
Reading habits	
Regular reader	20 (71.4%)
Not a regular reader	8 (28.6%)
Preferred genre: Fiction	21 (75.0%)
Preferred genre: Non-fiction/Other	7 (25.0%)
Used digital reading devices	9 (32.1%)
No digital reading device use	19 (67.9%)
Prior experience with eReaders	19 (67.9%)
No prior experience with eReaders	9 (32.1%)

*Includes participants who were divorced, widowed, separated, or never married.

Apathy Prevalence



Impact on Apathy



Qualitative Findings

THEME 1: EMOTIONALLY MEANINGFUL ENGAGEMENT

Reading fiction books that resonated with personal experiences evoked positive emotions such as joy, comfort, inspiration, and nostalgia. Participants reported looking forward to reading and feeling uplifted, relaxed, and mentally stimulated.

KEY FINDINGS

- Books brought joy, comfort, and escape
- Evoked memories and personal reflection
- Renewed interest and motivation to read
- Improved mood and reduced loneliness

“I looked forward to my reading time each day. The stories made me laugh, cry, and think about my own life.”
– Participant

THEME 2: SOCIAL CONNECTEDNESS

Group discussions fostered a sense of belonging, friendship, and mutual support. Participants valued sharing thoughts, listening to others, and forming relationships with peers.

KEY FINDINGS

- Built new friendships and strengthened existing relationships
- Felt heard, understood, and valued
- Group sharing created a supportive community

“It was nice to talk with others about the books. We connected, shared, and became friends.”
– Participant

THEME 3: ADAPTATION TO INDIVIDUAL NEEDS

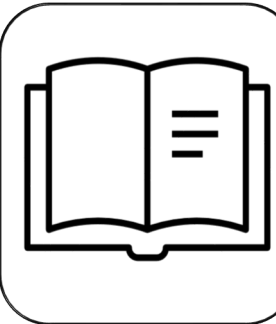
The program was adaptable to participants' preferences, reading abilities, and life situations. Features such as adjustable font, page-turn options, and book choices supported independent reading and engagement.

KEY FINDINGS

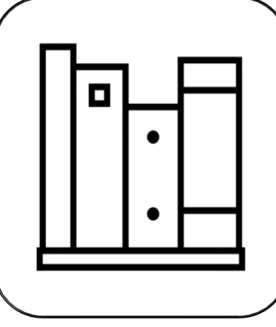
- Flexibility in format and book selection
- eReaders features improved accessibility
- Supported independence and confidence
- Easy to use and convenient

“The eReader was easy to use. I could change the font and read at my own pace. It worked for me.”
– Participant

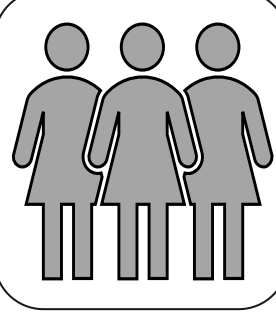
Discussion



Digital reading emerged as a promising non-pharmacological intervention for reducing apathy among community-dwelling older adults, including those living with mild dementia.



The significant reduction in apathy supports Socioemotional Selectivity Theory (SST), suggesting that emotionally meaningful activities can promote motivational re-engagement in later life.



The intervention demonstrated high feasibility and acceptability, with excellent participant engagement throughout the 8-week program.

Implications

- Digital reading programs offer a promising non-pharmacological approach for addressing apathy among community-dwelling older adults, including those living with mild dementia.
- Community organizations, libraries, senior centres, and dementia support programs could incorporate structured digital reading groups to promote emotional well-being, social engagement, and cognitive stimulation.
- The intervention is **low-cost, scalable, and feasible**, making it particularly suitable for rural and underserved communities where access to specialized dementia services may be limited.
- Integrating digital reading programs into **social prescribing initiatives, community dementia care, and aging-in-place strategies** may help reduce apathy and support healthy aging.
- Future research should evaluate **long-term effectiveness, implementation in diverse populations, and cost-effectiveness** through larger randomized controlled trials.

Conclusion

- ✓ An 8-week digital reading program significantly reduced apathy among rural older adults with and without mild dementia.
- ✓ Findings support **Socioemotional Selectivity Theory**, suggesting that emotionally meaningful reading, social connection, and accessible digital technologies promote motivational re-engagement.
- ✓ Digital reading interventions represent a **promising, scalable, low-cost, non-pharmacological approach** that could be integrated into community dementia care and healthy aging initiatives.
- ✓ Future randomized controlled trials are needed to evaluate effectiveness at scale.

Key References

Chang, Y.-H., Wu, I.-C., & Hsiung, C. A. (2021). Reading activity prevents long-term decline in cognitive function in older people: Evidence from a 14-year longitudinal study. *International Psychogeriatrics*, 33(1), 63–74. <https://doi.org/10.1017/S1041610220000812>.
Marin R. S. (1990). Differential diagnosis and classification of apathy. *The American Journal of Psychiatry*, 147(1), 22–30. <https://doi.org/10.1176/aip.147.1.22>.
Volicer, L., Frijters, D. H., & van der Steen, J. T. (2013). Apathy and weight loss in nursing home residents: longitudinal study. *Journal of the American Medical Directors Association*, 14(6), 417–420. <https://doi.org/10.1016/j.jamda.2012.12.004>.
World Health Organization. (2021). Framework for countries to achieve an integrated continuum of long-term care. World Health Organization. Retrieved from <https://www.who.int>. (Accessed October 20th, 2024)

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