

Preliminary Examination of Intervention Effects Using Immersive Life Story Books Generated By AI:

P2-10

How did the BPSD, Caregiving burden, Depression, Apathy, and Cognitive function of people with dementia change?

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Main Findings

- ILSB intervention is a highly effective method for influencing emotional functioning through the autobiographical memories
- Emotional arousal leads to positive effects, such as a decrease in NPI and an increase in joy in most cases.

INTRODUCTION

- Emerging evidence suggests LSB interventions can improve BPSD and Depressive symptoms.¹⁾
- However, it is challenging to elicit high-quality, deep narratives from PWD
- Additionally, it is difficult to obtain photographs or items that stimulate autobiographical memory in persons with dementia.
- To address these challenges, we hypothesized that an Immersive Life Story Book (ILSB) intervention, utilizing large curved monitors and generative AI to visualize narratives, would be effective.

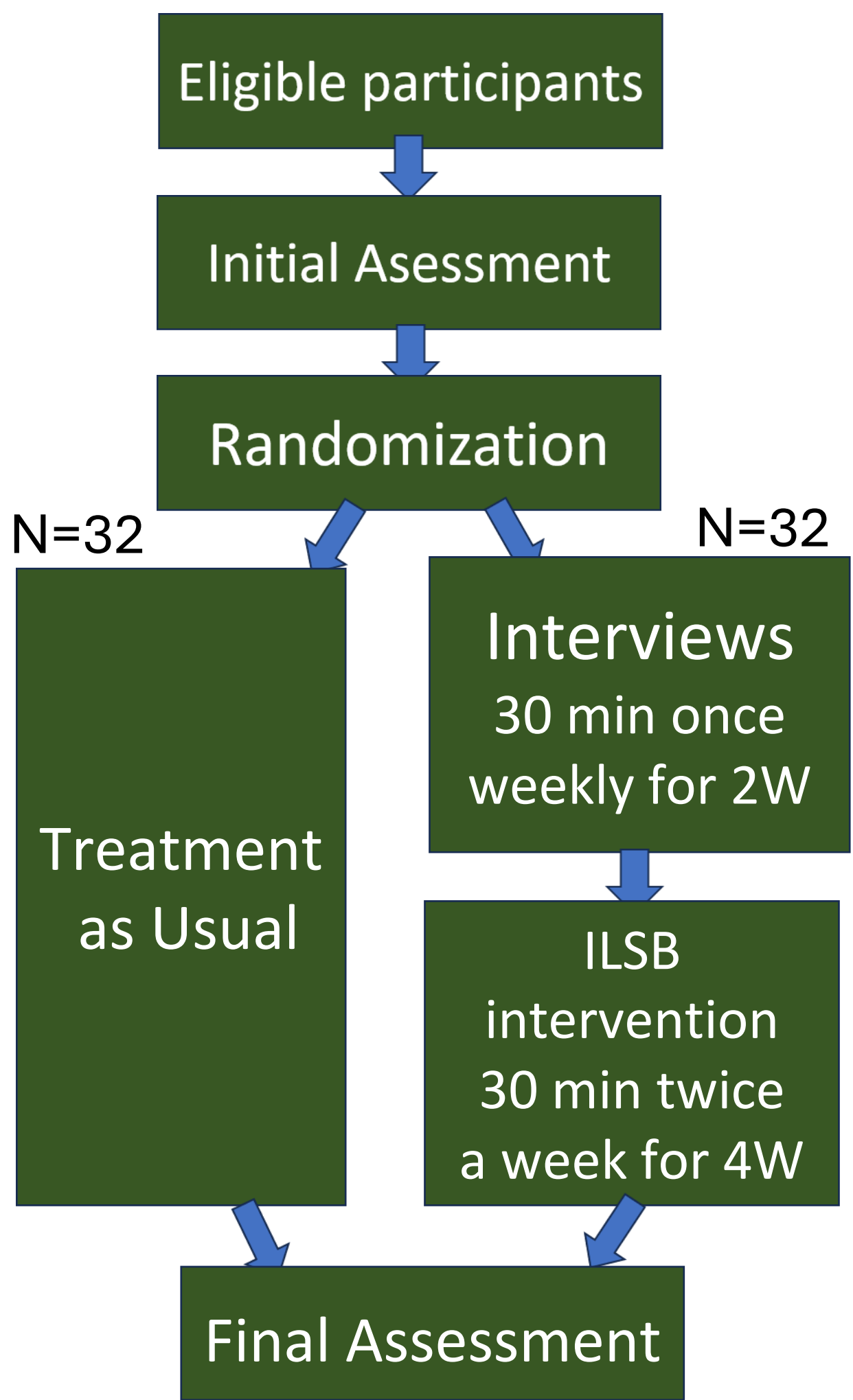


Listen to their stories from childhood and their younger days.

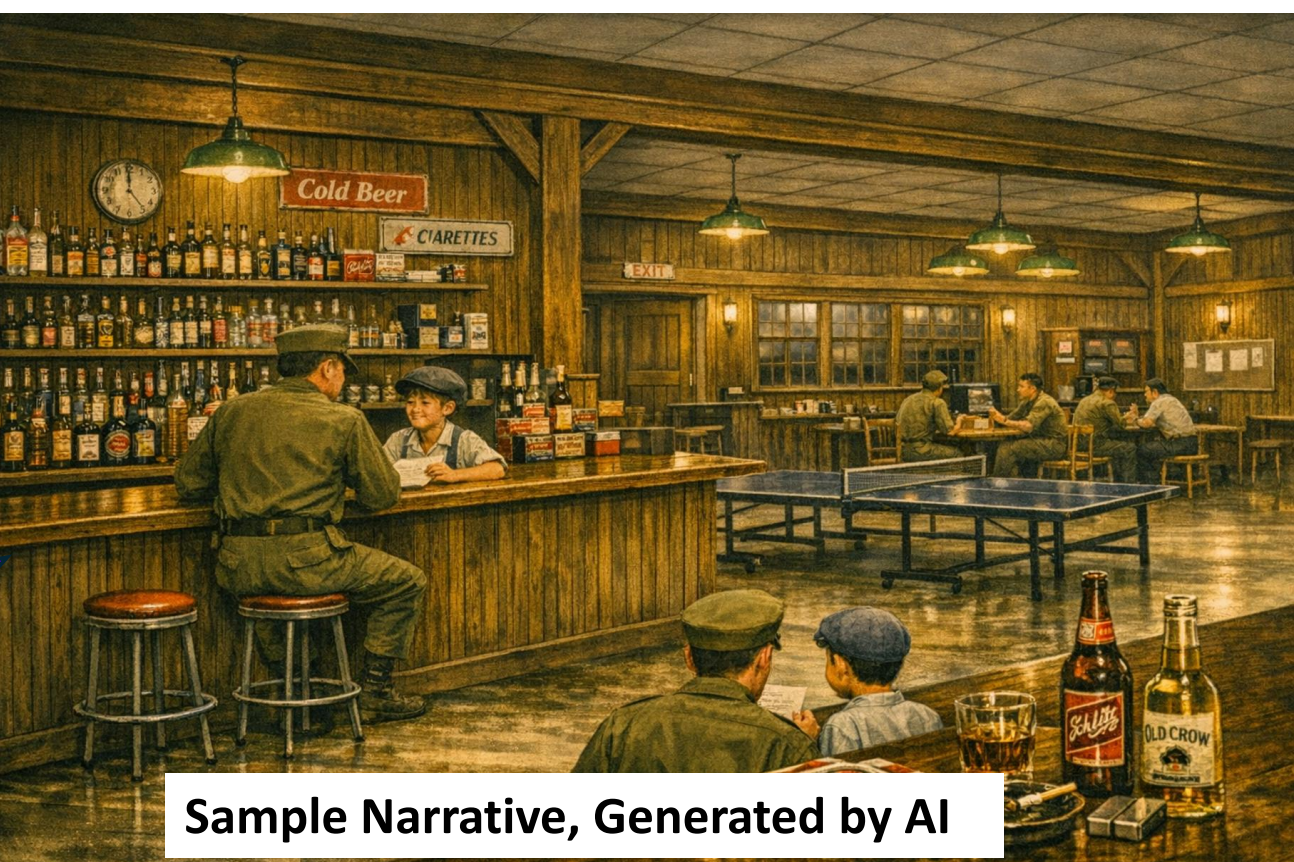
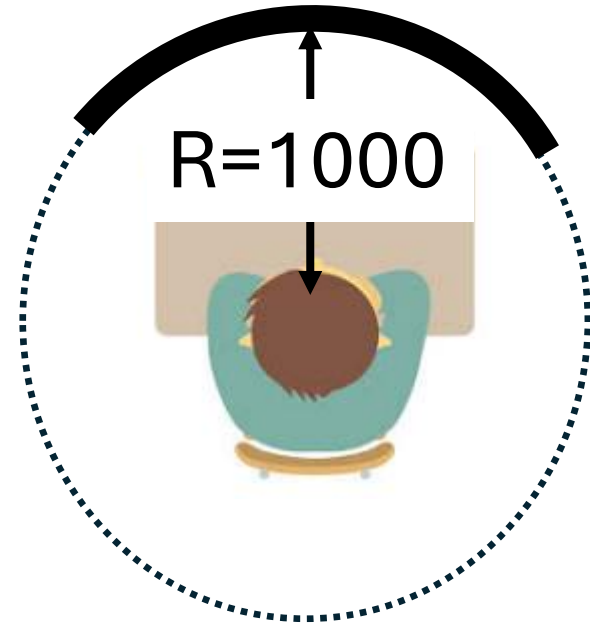
Memories from a 90-year-old of his teenage years working at a U.S. military base, where he held jobs such as a dishwasher and bartenders

METHODS (RCT, N=64)

This study was conducted with participants residing in nursing care facilities and dementia wards.



34" curved monitor (R=1000)



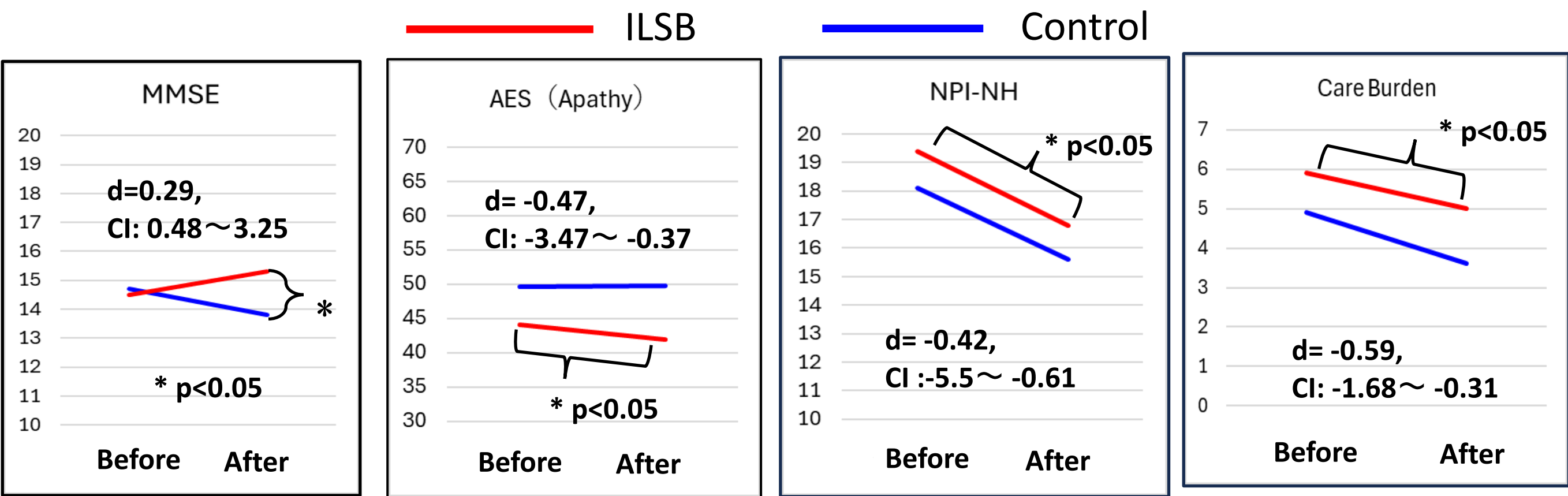
Sample Narrative, Generated by AI

RESULTS

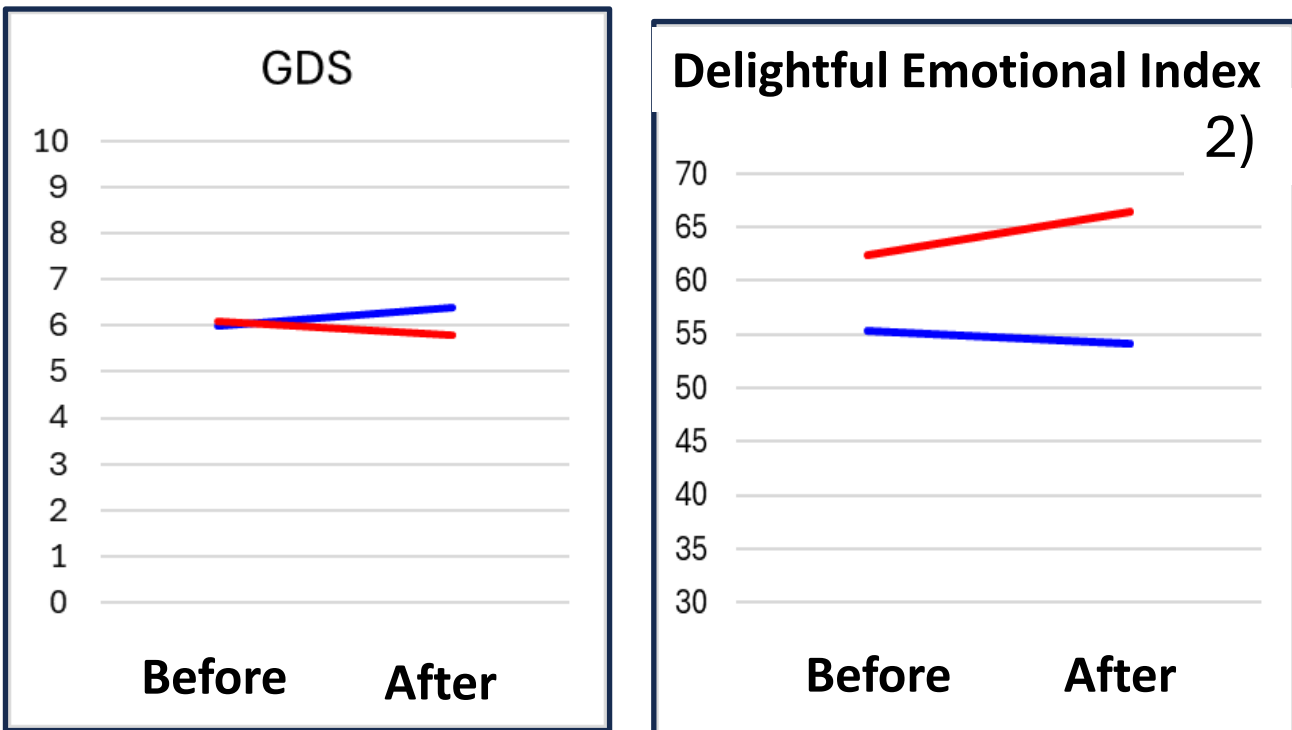
Participants

	ILSB(N=32)	Control(N=32)
Age	88.2±5.8	89.4±6.0
MMSE	14.5±6.0	14.7±6.6
SEX	Female 29	Female 28

Participants were individuals Who had a clinical diagnosis of dementia, were capable of simple daily conversation, And had no significant visual or hearing impairment or other psychiatric disorders



- Regarding cognitive function, a significant interaction was observed, showing improvement with a small-to-medium effect size.
- Significant intra-group improvements in apathy, BPSD, and caregiving burden were observed only in the intervention group.



- For GDS and DEI, regression slopes diverged between groups, but no statistically significant differences were observed.

A linear mixed-effects model was conducted using EZR to examine the intervention effects of the ILSB. The model included intervention, time, and the intervention-by-time interaction as fixed effects, while participant was included as a random intercept to account for individual variability.

REFERENCES

- Elfrink et al. (2018) Life story books for people with dementia: a systematic review
- Fujii et al. (2018) Dramatic Emotional Therapy for Dementia Patients

CONCLUSIONS & Future issues

- Our findings demonstrate that ILSB is an effective intervention for enhancing emotional function by utilizing intact autobiographical memories in persons with dementia
- Apathy involves reduced spontaneity, executive dysfunction, and blunted affect. We hypothesize that our intervention improved apathy by stimulating emotional function.
- Adjusting the complexity of visual information according to dementia severity and preventing overstimulation are critical issues to be addressed.

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Approved by the institutional review board of the lead author's affiliation.
Data collection is ongoing, with 20% remaining.
No conflicts of interest.

