

VR&R: Virtual Reality Respite & Relaxation for Caregivers of People Living with Dementia

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BACKGROUND

Caregivers for people living with dementia (PLWD) experience almost **twice** the rate of elevated distress compared to those caring for other older adults.

The first study investigating how **Virtual Reality** (VR) can be used at home to provide **respite** to caregivers of PLWD. Respite allows caregivers to recover and sustain their role, while maintaining their lifestyle.

OBJECTIVES

- Caregiver Outcomes:** respite, resilience, burden, and well-being.
- Dementia-Related Outcomes:** impact on mood, behavioral and psychological symptoms.
- Compare VR Formats:** Solo-VR vs. Social-VR.
- Optimize Design:** make at-home VR easy, effective, and supportive of caregiver respite.

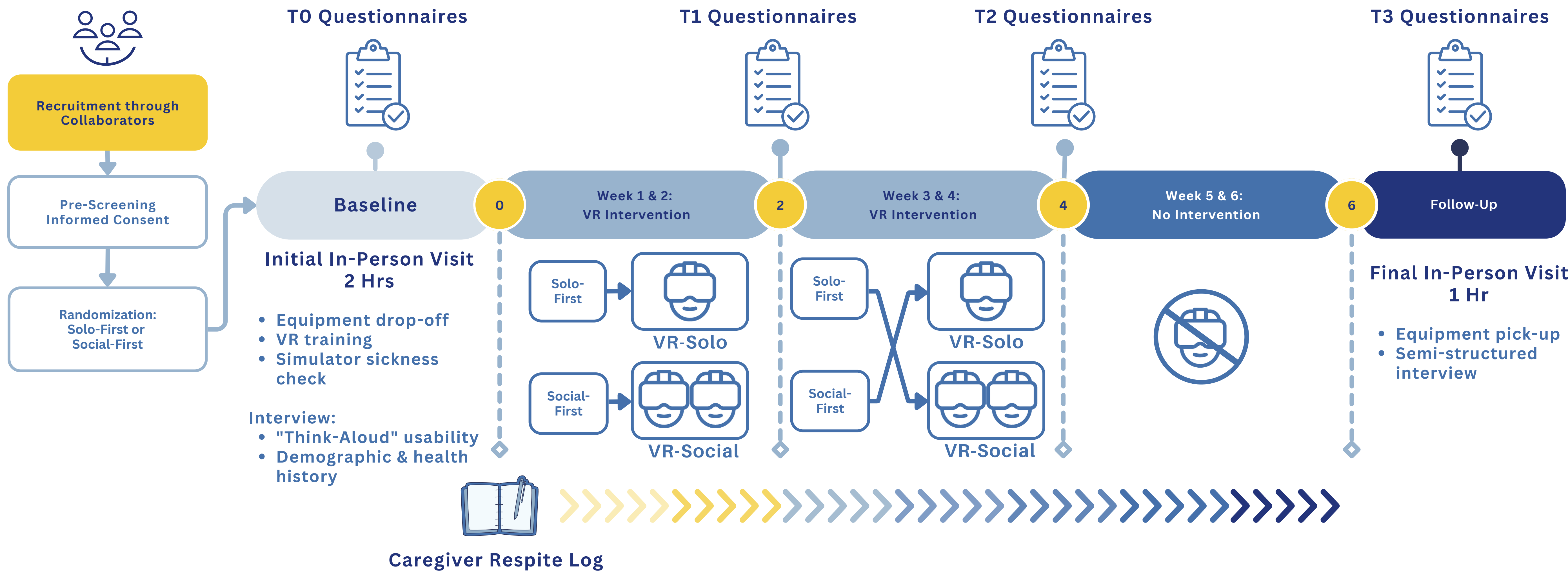
INTERVENTION

- caregiVR** platform on Meta Quest 2, managed via Samsung Galaxy S9 FE tablet.
- 94** curated dementia-appropriate 360° videos.
- Sessions recommended **2–3 times per week**, ~30 minutes each.
- Solo-VR** condition: Caregiver sets up VR for PLWD, then steps away for “respite time.”
- Social-VR** condition: A trained research assistant visits home and co-facilitates VR use with supportive conversation.



METHODS

Study Design: **6-week** open-label pragmatic crossover trial



Using a realist-informed Context–Mechanism–Outcome (CMO) framework, this interim qualitative analysis examined how, for whom, and under what conditions home-based VR generated respite. Contexts, mechanisms, and outcomes were independently coded to develop pathways, later grouped by respite type or lack of respite.

RESULTS

Interim results from our first 25* caregiver–PLWD dyads.
*1 dyad withdrew prior to randomization
Target enrollment: 50 dyads (N=100)



4.1/5 Stars Solo

4.3/5 Stars Social

Average Post-Session VR Experience Rating

Avg VR Session Length



Solo: 30 min
Social: 29 min

Avg SUS Rating



71.1
“Good” Usability

24 Participants Living with Dementia (≥65 years)

- Mild (8), Moderate (8), Severe (7), NA (1) dementia
- Average age = 80.4 y.o., 62.5% female



Most Helpful: Social-VR

- Enabled caregivers to safely step away for rest or household tasks
- Provided meaningful social connection and interaction

Top Respite Goals

- Leisure/Social Connection
- Temporary Disengagement
- Productivity

24 Caregivers (provides care at least 2-3x/week)

- adult children (10), spouses (5), professionals (6), sibling (2), parent (1)
- Average age = 59.0 y.o., 79.2% female



Also Beneficial: Solo-VR

- Improves the caregiving experience: “If (s)he is happy, I am happy” & available on demand
- Boosts mood and strengthens social connection for the PLWD

Prominent Mechanisms Supporting Respite

- Enjoyment
- Restorative Witnessing: observing a loved one calm, engaged, or happy

CONCLUSION

If it relaxes them, then it relaxes me.

- Social-VR:** temporal and psychological respite was enabled through perceived safety, transfer of responsibility, technological support, and role disengagement.
- Solo-VR:** relational and existential respite was enabled through shared engagement, reminiscence, and restorative witnessing.
- Respite was limited by: technology challenges, severe dementia symptoms, and attachment-seeking behaviours.
- Take-home: flexible, home-based VR may support respite across different caregiver needs and care contexts. VR respite is multidimensional and context-dependent.

Learn More

