Access to and interest in assistive technology for home-dwelling people with dementia under COVID-19

Marie Gedde[1,2], Bettina S. Husebø[1,3], Nathalie Puaschitz[4], Maarja Vislapuu[1], Renira Angeles[5], Ane Erdal[1], Line Iden Berge[1,6]

[1]Centre for Elderly- and Nursing Home Medicine, University of Bergen [2] Haraldsplass Deaconess Hospital [3] Municipality of Bergen [4] Western Norway University of Applied Sciences, [5] Norwegian Research Centre, [6] NKS Olaviken Gerontopsychiatric Hospital

Aim

I) Describe pre-pandemic access to assistive technology for people with dementia

II) Explore whether the COVID-19 restrictions increased the caregivers' interest in assistive technology

III) Identify factors associated with increased interest

Methods

The LIVE@Home.Path trial is a two-year, stepped wedge, randomized controlled trial, running from 2019 to 2021 [1]. We extended the trial to include the PAN.DEM (PANdemic in DEMentia) cohort when the COVID-19 restrictions interfered with the trial protocol.

Of the 438 dyads (n, people with dementia and caregivers) assessed from May to November 2019, we telephone interviewed 126 randomly invited dyads to explore their perceived impact of the COVID-19 restrictions in March and April 2020 (Fig. 1).

Approvals: Regional Ethics Committee:

- LIVE@Home.Path (2019/385)
- PAN.DEM (10861)

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Contact: marie.gedde@uib.no

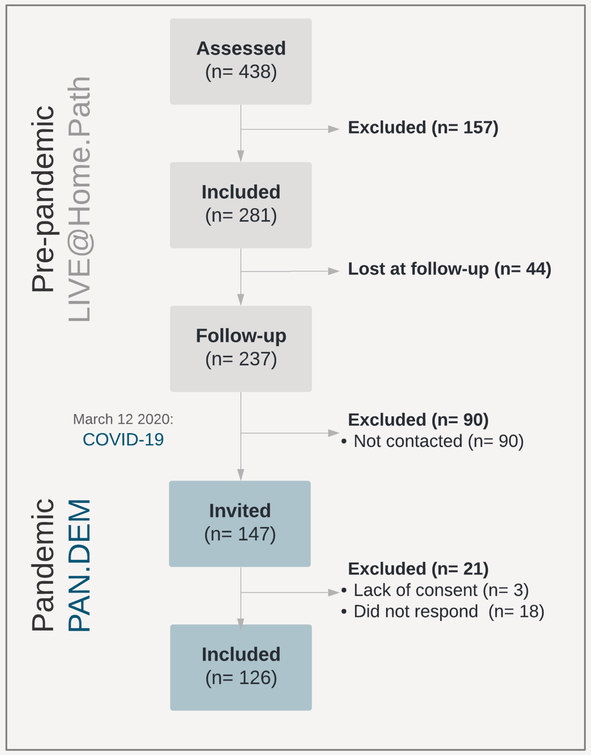

Figure 1: Flowchart of dyads (n) in LIVE@Home.Path and PAN.DEM.

Picture 1: Eva (82 years old) enjoying technology.

Table 1: Pre-pandemic access to assistive technology (n=126), n (%), not exclusive items

Nonwearable safety devices	57 (45)	**Wearable safety devices**	48 (38)
Door sensor or - camera	4 (3)	Safety alarm without GPS	43 (35)
Electric door lock	16 (13)	Safety alarm with GPS	2 (2)
Water -, bed-, and light sensors	3 (2)	GPS	3 (2)
Timer on electric devices	13 (13)	Fall sensor	0 (0)
Stove guard	46 (37)	**Orienting devices**	**45 (36)**
Communication devices	**0 (0)**	Calendars	45 (36)
		Automatic drug dispencers	8 (6)

Results

I) Pre-pandemic

Mean age for the person with dementia was 82 years; 61% were women, and 40% lived alone (Suppl.). 15% operated telephones independently, 74% partly, and 11% were not able to use telephones. Regarding social media, two used Facebook and one person used Skype. Table 1 presents access to assistive technology. 52% of caregivers were children (Suppl.).

II) Increased interest in assistive technology?

Compared to before COVID-19, 14% of caregivers reported more digital/telephone communication within the dyad while 27% reported reduced or no contact; interest in assistive technology increased in 17%.

III) Factors associated with increased interest

The adjusted logistic regression model identified caregivers to people with better MMSE score [3] (odds ratio (OR) 1.26, $p<0.05$) and lesser familiarity in using telephone per IADL [2] (OR 2.60, $p<0.05$) more likely to report increased interest in technology.

Discussion

I) Most had access to any assistive technology, while only a few operated more novel technologies.

II) Caregivers' interest in new technology did not increase much under COVID-19 restrictions.

III) Caregivers considered technology as an obstacle rather than a tool for independence in adapting to the pandemic situation?

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UNIVERSITY OF BERGEN