A Program Evaluation of Web-Based Acceptance and Commitment Therapy (ACT) for Dementia Caregivers

**Student Author:** Hannah Cragun; **Investigators:** Drs. Elizabeth Fauth, Michael Levin (Psychology), and Josh Novak (Auburn University)

### Dementia Caregiving & Interventions

**Expected rise in unpaid family caregivers** with projected 10 million new cases of dementia each year. (Gumir & Taio, 2019, World Health Organization, 2019).

While caregiving can be rewarding, it is associated with increased depression, poor physical health, relationship strain, and stress from behavioral and psychological symptoms of dementia (BPSD). (Perrin et al., 1990; Proctor & Seltzer, 2007; Fauth et al., 2012).

Caregivers face barriers to access to traditional face-to-face interventions: Cost, travel, work-role conflict, and leaving relative unattended (Cuijpers, 1997; Richards & Richardson, 2012; Levin et al., 2017).

Godwin et al. (2013) reviewed 24 computer-based interventions for caregivers. They were accessible and navigable, improved mental health, lowered burden, and increased confidence in caregiving role.

But none included Acceptance and Commitment Therapy.

### ACT: Acceptance and Commitment Therapy

Is a subset of Cognitive Behavioral Therapy (CBT) (Hayes et al., 2004).

ACT teaches skills through mindfulness and acceptance to manage difficult thoughts and feelings and increases committed living according to one’s values. See Fig. 1 (Hayes et al., 2004; Twilgh & Levin, 2017; Twilgh et al., 2019).

Traditional face-to-face ACT is empirically effective for many populations, including dementia caregivers (Blackledge & Hayes, 2006; Brinkborg et al., 2011; Marquez-Gonzalez et al., 2010; Bethay et al., 2013).

ACT skills are effectively delivered online for other populations (Levin et al., 2014; Ly et al., 2013; Kappelman et al., 2013; Levin et al., 2017).

### ACT for Caregivers

- **10 Sessions** teaching psychological flexibility (See Fig. 1) and mindfulness. Sessions are 20-30 minutes each, encouraged to complete 2 sessions a week to be completed in 6 weeks.

**Pilot Study Results**

- Power analyses suggested N =109
- 160 completed online informed consent & pre-test
- 119 started & completed session 1, N=46* completed all 10
- Repeated Measures ANOVA for completed assessments at baseline, post-test, 4-week follow-up
- Decreased: Depressive Symptoms, Caregiver Burden, Stress reactions to BPSD
- Increased: Quality of Life, Positive Aspects of Caregiving, Improved ACT skills: Values-based Living, Cognitive Flexibility, and Acceptance & Action

**Current Study: Master’s Thesis Proposal**

**Extant Data:** N=46 [Completed all three waves of measurement]

**Predictor Variables:**

- Reported effort practicing skills between sessions
  - Ex. “The practice assignment for Session 1...was to identify things that matter to you. How much effort did you put into this activity?” 0-5 (0 = I did not have an opportunity to practice) to (5 = a lot).
- Perceived helpfulness of between-session practice assignments
  - Ex. “How helpful was it to practice focusing on what matters?” 0-5 (0 = Not at all Helpful) to (5 = Very Helpful)
- Use of ACT skills
  - Measured at Post-Test & 4 week follow-up
  - Ex. “Do you practice “Everyday Mindfulness” more, less, or about the same?” 0-10 (0 = I do this MUCH LESS now) to (10 = I do this MUCH MORE now).

**Outcome Variables:**

- Progress toward values-based living
  - Values Questionnaire (Smout et al., 2014). 10 items, item responses 0-7. Sum score range = 10-70.
- Stress Reactions to BPSD
  - Revised Memory and Behavior Problem Checklist (Teri et al., 1992). If a behavior symptom was present, ask how stressful it was. Mean of 24 items, item responses 0-4.

**Hypotheses**

H1: Greater usage of Cognitive Defusion and Mindfulness skills will impact outcomes more than other skills.

H2: Greater self-reported effort on practicing skills between sessions will be associated with decreased stress reactions to BPSD and greater progress made toward values-based living.

H3: Skills practice activities perceived as more useful will be associated with improved outcomes.

### Proposed Analyses for Research

**Correlation Analyses**

- Reported Effort on activities for sessions 2-10 (9 sessions)
- Perceived Helpfulness on activities for sessions 2-10 (9)
- ACT Skills (5 skills): Noticing Difficult Thoughts and Unpleasant Behaviors, Noticing Avoidant Behaviors, Values-Based Living, Everyday Mindfulness, and Commitment to Values-Based Living

**Step-Wise Regression Models**

- Examine variance explained by Individual Sessions and as a whole in each outcome variable
  - (total perceived helpfulness, total effort, use of all ACT skills)
  - Examine Model Fit Index $R^2$

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*Figures and diagrams are not transcribed.*