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

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Dementia Caregiving & Interventions

Expected **rise** in unpaid family **caregivers** with projected **10 million new cases of dementia** each year. (Kumar & Tsao, 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).** (Pearlin et al., 1990; Pinquart & Sörensen, 2007; Fauth et al., 2012).

Caregivers face **barriers of 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; Twohig & Levin, 2017; Twohig et al., 2019).

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

ACT skills are **effectively delivered online for other populations** (Levin et al., 2014; Ly et al., 2014; Lappalainen et al., 2015; 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
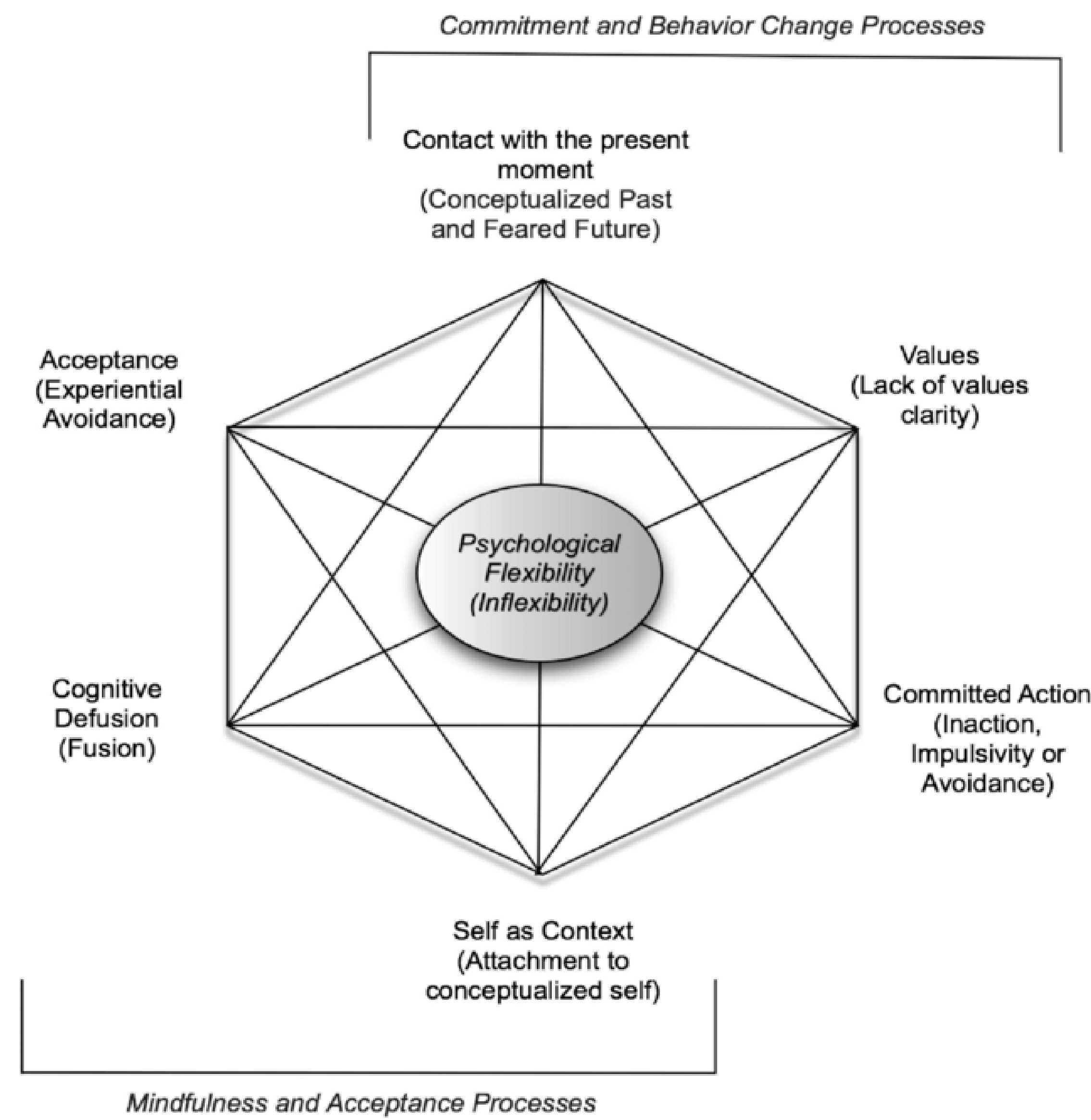

Figure 1. ACT Model for Behavioral Change
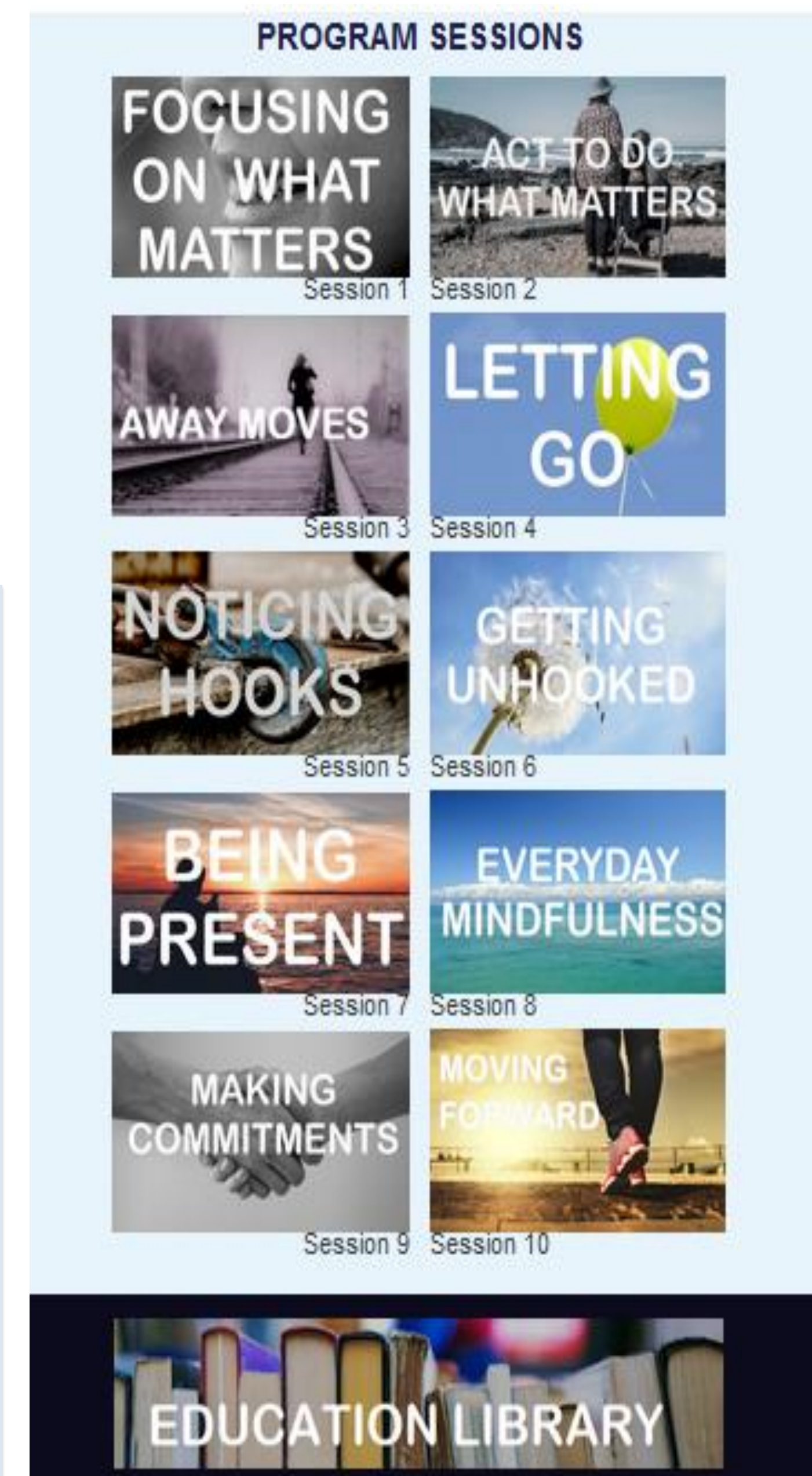(Prevedini et al., 2011)

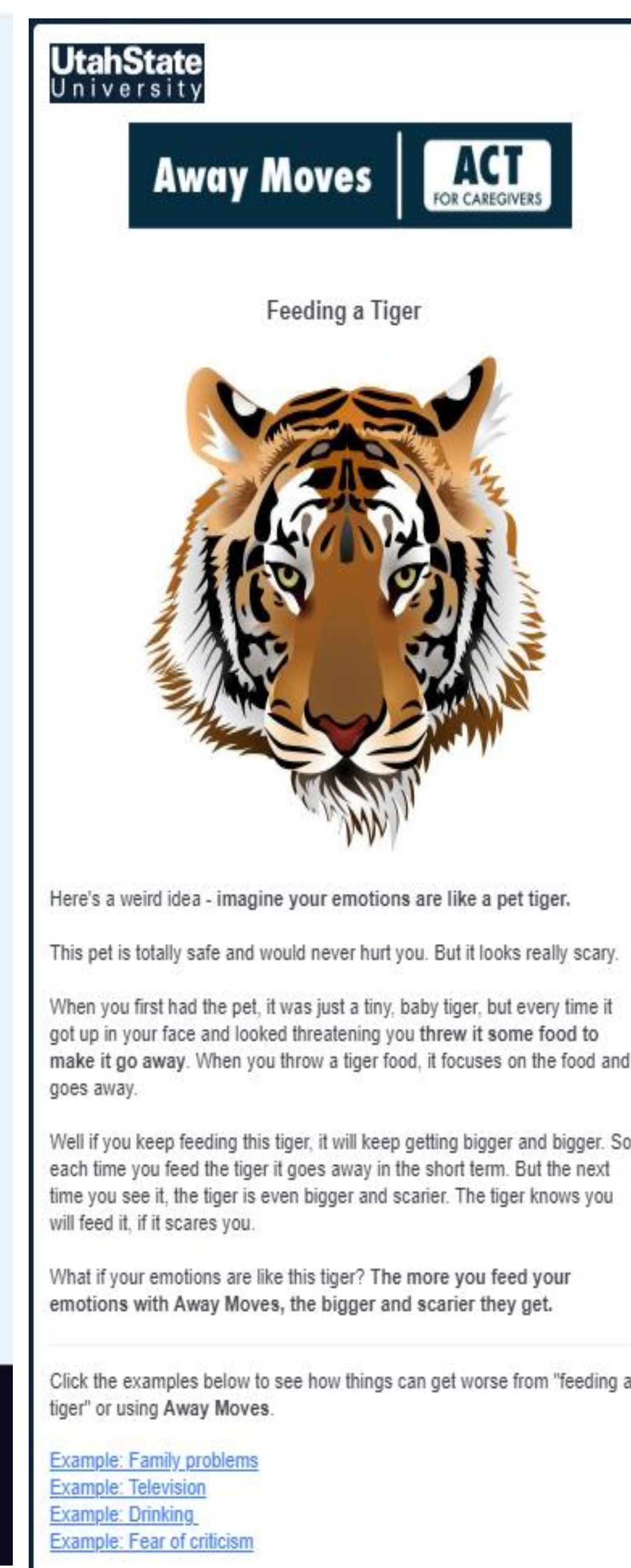Figure 2. ACT for Caregivers homepage (Utah State University, 2020)

Figure 3. Example activity
(Utah State University, 2020)

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, asked 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