

The WeCareAdvisor™



A Web-based tool to help Family Caregivers Address Behavioral and Psychological Symptoms of Dementia (BPSD)

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Acknowledgments

Funded by NINR R01 NR014200-01

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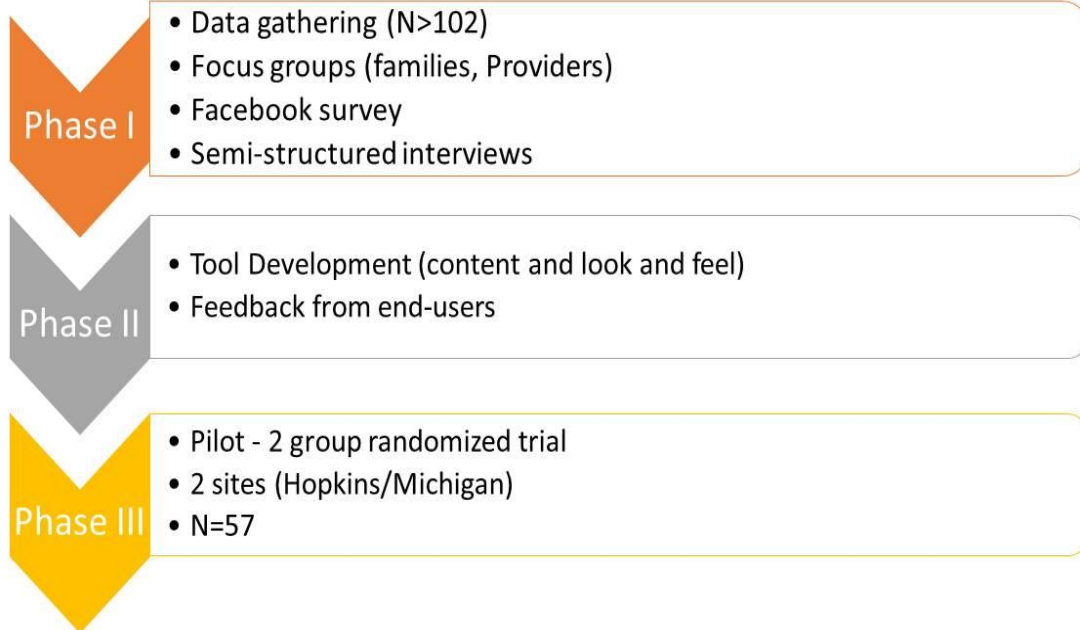
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Tool Development – Iterative Design Process



Family caregiver focus groups: 3 Key Themes

1. Minimize difficulty and training needed

- “If it needs training, it’s too complicated.”
- “Make it intuitive or you will scare people away. We are stressed already.”

2. One-stop shopping

- “Information is all piecemeal, nothing is brought together.”
- “I had a specific question and there was no systematic way to find an answer. I had to look through topic threads and hope someone responded.”

3. Tailored output

- “I’m going to strangle somebody if I see a frequently asked questions. I can’t be put into one category.”
- “One of my frustrations about support groups is the disparity in the kind of issues people are dealing with.”

Majority (>88%) willing to use a web-based program for BPSD

Kales et al Alzheimer Dis Assoc Disord 2016

Werner et al Applied Clinical Informatics 2017

Principles Underlying Tool Development

- Easy to use
- On demand
- Opportunity for repeated use
- Attention to health literacy (8th grade level)
- Consideration of race/cultural diversity
- Peer navigator
- Addresses full range of behaviors
- Strategies customized to a specific symptom and context
- Generation of a treatment plan reflecting the varied contributors to behavior



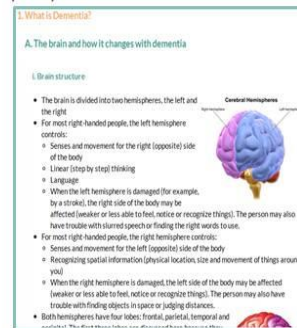
- Peer navigator
- DICE approach
 - WeCareAdvisor Prescription
- Caregiver Survival Guide
- Daily messaging (emails)



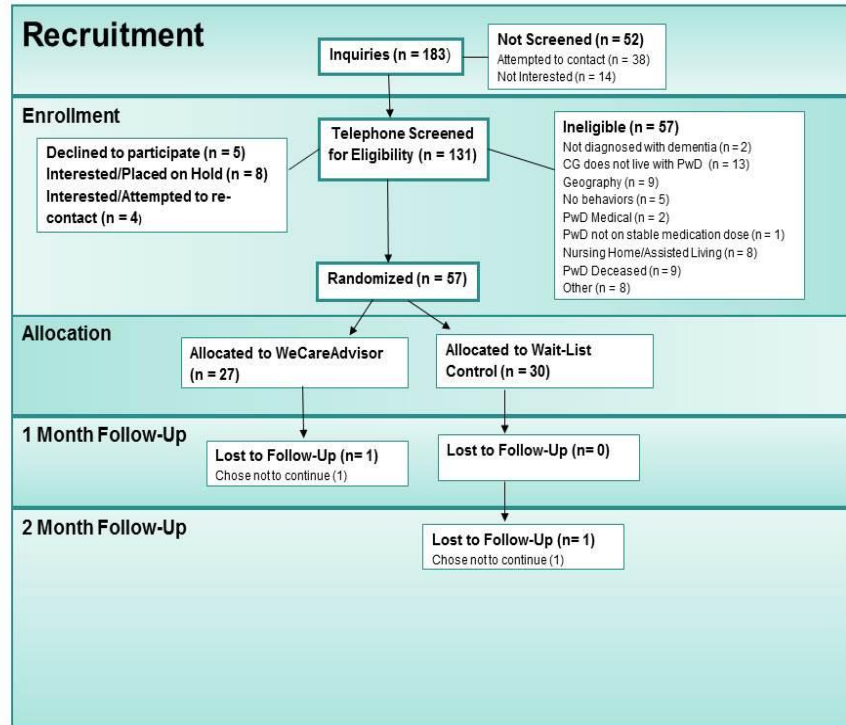
Here's what it's like to use the DICE process...



1. **Describe** - First choose a behavior that's challenging for you or Jacob. Then answer a few questions to describe the behavior. These questions help WeCareAdvisor choose the best tips for your situation.
2. **Investigate** - Next, you get to "play detective" and think about what might be contributing to Jacob's behavior. You'll answer questions to identify and rule out possible triggers for the behavior.
3. **Create** - Then, WeCareAdvisor will give you a behavior prescription with tips to help prevent and manage the behavior. The tips are based on your answers and are specific to your situation.
4. **Evaluate** - After a week, WeCareAdvisor will ask you how things are going and whether the tips were helpful. If things haven't improved, you can get new tips to try.



Study Flow Chart



Caregiver Demographics (n=57)

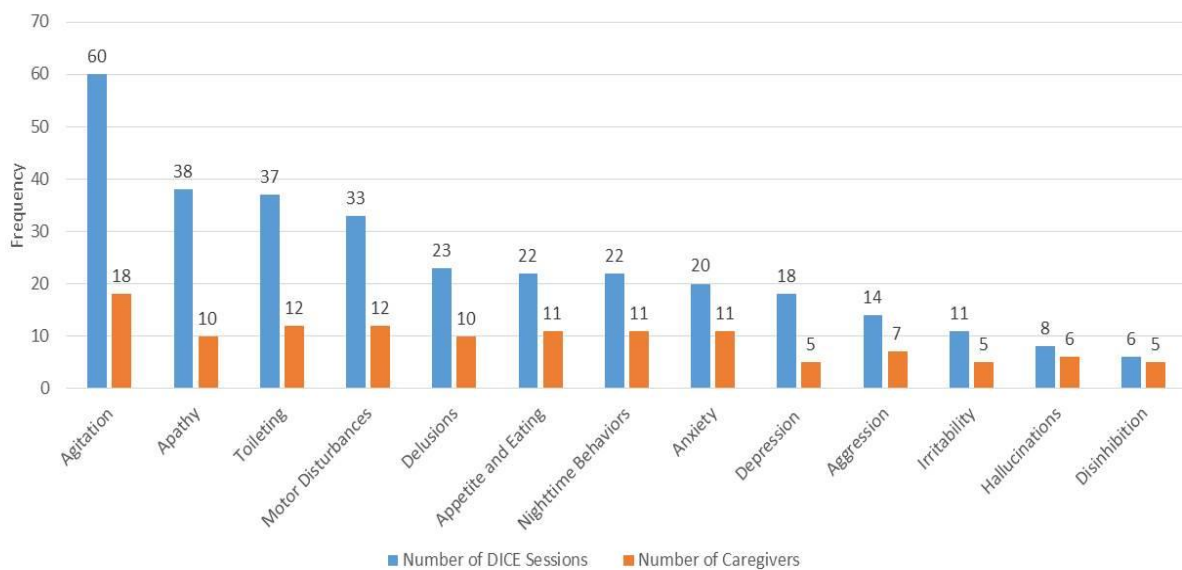
- No significant differences between WeCareAdvisor and Waitlist groups
- 65 years old
- Mostly women (>70%)
- Most had high school education
- Most spouses
- 63% White
- 33% African American

One Month Use Data (N=33)

- **Total Logins = 608**
 - Avg. 18.4 logins (SD=18.5, range 1 – 108)
- **Total DICE Sessions = 312**
 - Avg. 9.5 sessions (SD=7.0, range 1 – 29)
- **Number of Logins significantly associated with**
 - Number of DICE Sessions ($r = .483, p = .004$)
 - Gender (Male) ($r = .433, p = .012$)

One Month Use Data –Hopkins Site

Specific BPSD by Number of Dice Sessions and Number of Caregivers



Reduced Caregiver Distress with BPSD (N=57)

Effect	Estimate	Standard Error	t-value	Pr>t
WeCareAdvisor (1 month – Baseline)	-6.25	1.39	-4.51	<0.0001
WeCareAdvisor vs. Waitlist	-4.45	1.88	-2.37	0.02
Waitlist (2-month-1 month)	-3.83	1.29	-2.97	0.004

WeCare had significant improvement from Baseline to 1 month, **significantly greater improvement than Waitlist**. After receiving tool, Waitlist also had a significant decline in distress

- Mixed model results adjusted for site:

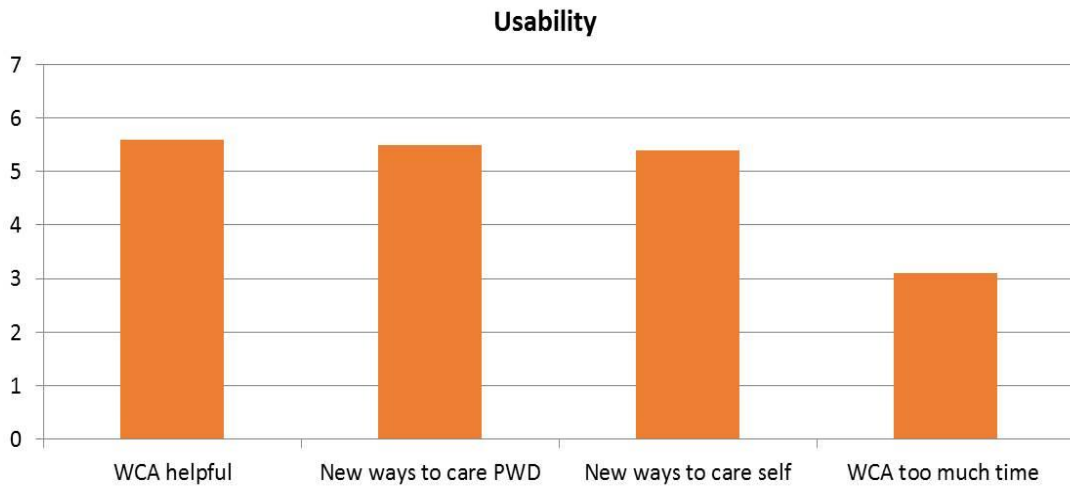
Improved Caregiver Confidence (N=57)

Effect	Estimate	Standard Error	t-value	Pr>t
WeCare (1 month- baseline)	1.12	1.84	0.61	0.54
WeCare vs. Waitlist	7.52	2.52	2.99	0.004
Waitlist (2 month-1 month)	4.67	1.74	2.68	0.009

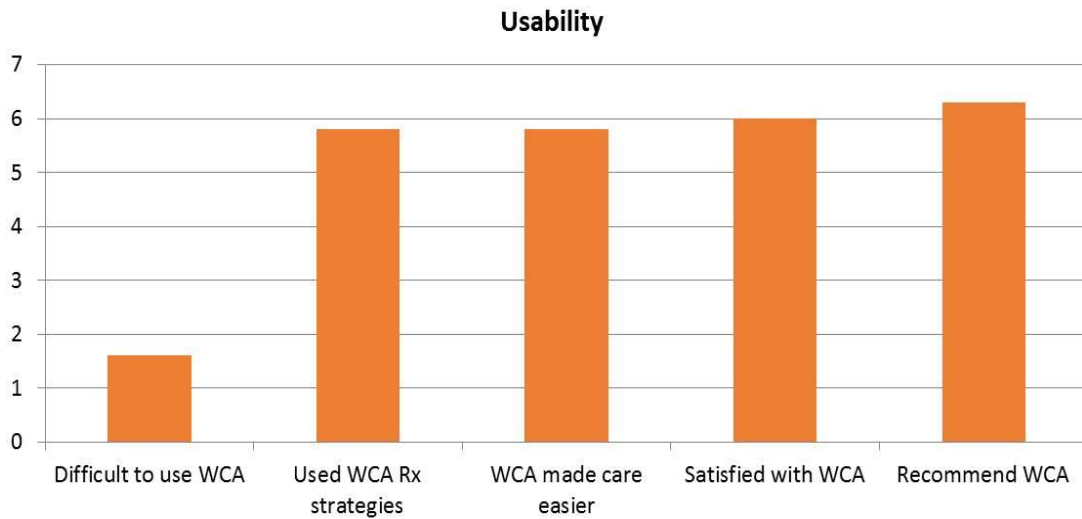
- WeCare had significantly higher change in confidence as compared to Waitlist
- Waitlist had a significant improvement in confidence after 1 month of tool use (t=4.56, p<0.0001)

- Mixed model results adjusted for site:

Preliminary Usability Data (N=57)

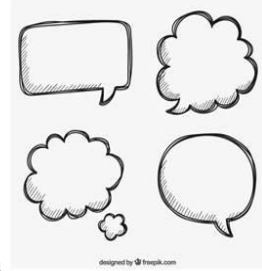


Preliminary Usability Data (N=57)



Caregiver Feedback-Positives

- “Wonderful new tool in my caregiving arsenal”
- “DICE structures my thinking”
- “Survival guide is comprehensive”
- “I shared the tool with my support group and everyone was impressed by the content and ease of use”
- “Love the feeling of support”
- “Ease of use very nice”
- “Daily tips are awesome”
- “I wish I would have had this a long time ago”
- “I learned a great deal more about dementia and the skills to use in dealing with related behaviors”
- “This week PWD had a UTI and the WeCareAdvisor helped to trigger in my mind that something was wrong and he should see the doctor
- “We can go to the doctor, go to support groups, but I see the value of having this daily. This is advice every day.



Caregiver Feedback-Suggestions

- Videos to demonstrate strategies
- Too much text, more graphics
- For some, would have been more helpful to have earlier in the disease process
- Some highly specific symptoms not addressed by tool



Summary

- Significant decrease in caregiver distress
- Significant change in caregiver confidence
- Waitlist showed similar benefits
- No significant impact for BPSD
- Preliminary usability data very positive.

