**Educating Rural Caregivers with Mobile Technology**

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**Presenter Disclosures**

Kathy Jo Ellison and Emily Myers

(1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

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**Team:**
- Kathy Jo Ellison, DSN, RN
- Jatunn Gibson, MPH
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**Problem**

- Aging of the population and the increase in the number of chronically ill persons
- Over 43.5 million people nationwide provide informal care for a chronically ill elder family member delivering more than 75% of their care (AARP).

- Rural caregivers face additional challenges due to fewer transportation options, limited access to medical professionals, lower incomes, and fewer support systems.

**Background**

- The negative effects of long-term caregiving have resulted in the need for more effective evidence-based programs to improve caregiver outcomes.
- There has been limited attention to improving mechanisms to getting caregiver education into the rural areas and to the care recipients in greatest need of additional support.
- Previous research by the current team (2010) found workshops do not reach the neediest caregivers and recommended additional strategies be developed.

**Purpose**

The purpose of this University/Community collaborative project was to develop and evaluate a caregiver education program implemented via an iPad application.
Program

• A caregiving curriculum for the iPad was developed based on the Alabama Home Caregiver Curriculum.
• This curriculum had been developed by a team of Extension professionals, Auburn University School of Nursing faculty, Social Work and Nutrition faculty and other allied health practitioners.
• The educational components chosen for the iPad application were Meeting Personal and Health Care Needs, Nutritional Care, Accessing Community Resources, and Stress and Time Management.

Pilot project

• Training was held with rural home health care agencies and extension partners in a 2 county region regarding use of the iPad and evaluation of the program.
• Over 50 rural caregivers from two counties in the state were provided 2-3 day access to the iPad and a printer where they could print the resources they wished to retain.
• Caregivers were then invited to participate in a formal evaluation of the program.

Pilot evaluation

38 caregivers completed questionnaires post education including:
  o demographics
  o changes in their caregiving knowledge and skills
  o reactions to using the iPad program.

Description of Participants (n=38)

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<th>Caregiver</th>
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<tr>
<td>84.2% female</td>
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<td>Mean age 55.8 (SD 13.3)</td>
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<td>68.4% married</td>
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<td>62.2% Black, 37.8% White</td>
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<td>50% high school, 37% at least some college, 13% some graduate school</td>
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<td>65% employed</td>
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<td>54.5% provide care in care receiver's home, 41% in caregiver or shared home</td>
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<table>
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<th>Care Receiver</th>
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<tr>
<td>52.4% female</td>
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<tr>
<td>Median age 72 Range 27-100</td>
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<tr>
<td>Relationship of caregiver to receiver: spouse 31.8%, child/grandchild 22.7%, parent 13.6%, sibling 13.6%, friend 9.1%, paid 4.5%</td>
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<td>Hours of care per day median 3.5 Range 4-24</td>
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<td>Diagnoses: Dementia, CV Disease, Cancer, General disability, Diabetes/Optopedic</td>
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Conclusions

- An iPad program increased access of rural caregivers to supportive resources and appears to be an effective method of providing information and skill building to caregivers.
- Caregivers reported a moderate to great deal of improvement in the caregiving knowledge and skill areas covered in the program.
- iPad use was evaluated very favorably even by elderly caregivers with the exception of some difficulties in sound and printing.

Future Directions

- Increased development and use of mobile technology to improve access to education in vulnerable rural caregivers
- Use of Cloud technology