

Patient-Centered Online Care Model for Follow-Up Management of Atopic Dermatitis

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Organization:	University of California, Davis
Mechanism:	PAR: HS09-085: Mentored Clinical Scientist Research Career Development Award (K08)
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Summary: Access to timely, high-quality dermatologic care poses a significant challenge in the United States. Store-and-forward teledermatology—defined as the practice of dermatology through digital capturing and storage of clinical images and information, followed by asynchronous review of the clinical information by a dermatologist—presents an opportunity to improve patient satisfaction and access to dermatological specialist care.

This project introduced a patient-centered, technology-enabled model for delivering followup specialty care. Specifically, dermatologists participated in an asynchronous, online model for delivering direct followup dermatology care to patients with atopic dermatitis. Patients communicated directly with their dermatologists, captured and transmitted digital skin images, and received online treatment recommendations and prescriptions. Patients were randomized to either the patient-centered care online model of followup care, or conventional, face-to-face followup care. Data was collected to compare clinical outcomes, quality of life, patient satisfaction, and patient knowledge about his/her skin disease.

In addition to the research project goals, Dr. Armstrong is furthering her long-term career goal of increasing access to specialist care for patients in rural and medically-underserved communities. Funding from this Mentored Clinical Scientist Research Career Development Award allows Dr. Armstrong to advance her skills in health services research through structured coursework and regular seminars, and mentoring with leaders in health services research, dermatology, and telemedicine.

Specific Aims:

- Assess the effect of this asynchronous online model for delivering direct followup dermatologic care on clinical outcomes in patients with atopic dermatitis. **(Ongoing)**
- Evaluate the effect of this asynchronous online model for delivering direct followup dermatologic care on quality of life in patients with atopic dermatitis. **(Ongoing)**
- Determine the level of patient satisfaction and patient knowledge about atopic dermatitis in the asynchronous online model for delivering direct followup dermatologic care. **(Ongoing)**

2012 Activities: Dr. Armstrong's primary research work during 2012 was the completion of data collection from the randomized controlled trial and the subsequent data quality-assurance activities needed to prepare data for analysis, including ensuring that the data was coded correctly. Patients in both the intervention and the control groups completed multiple self-assessment tools to assess dermatology-specific quality of life

for each of their five visits at 8-week intervals. These included the Patient-Oriented Eczema Measure to assess disease severity, and the Dermatology Life Quality Index or Children's Dermatology Life Quality Index. Analysis will begin once data entry and cleaning of the full data set is complete.

In terms of professional development, Dr. Armstrong has been publishing and presenting her research and interests. In 2012, she authored or co-authored 28 peer-reviewed publications and presented at several conferences including the American Academy of Dermatology annual meeting, the Metabolic and Vascular conference, and the California Dermatologic Society meeting. She was also invited to be a grand rounds speaker at the University of California Los Angeles, University of California San Francisco, the University of Louisville, Stanford University, and the University of Pennsylvania.

Preliminary Impact and Findings: This project has no findings to date.

Target Population: Adults, Other Conditions: Atopic Dermatitis, Pediatric*

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to support patient-centered care, the coordination of care across transitions in care settings, and the use of electronic exchange of health information to improve quality of care.

Business Goal: Knowledge Creation

** This target population is one of AHRQ's priority populations.*