A TELEHEALTH HYPERTENSION FEASIBILITY STUDY AND AN ELECTRONIC MEDICAL RECORD “PRECISION PATIENT EDUCATION” PROCESS

ERICA LAKE, MLS
UNIVERSITY OF UTAH HEALTH

HOPE FOX ECCLES
LIBRARY

HELPING PATIENTS & THEIR FAMILIES MAKE
INFORMED HEALTH DECISIONS
The effects of a telemedicine health information prescription in uncontrolled hypertensive patients in a family medicine ambulatory clinic

EMR-based outcomes research around tailored patient education
I. HYPERTENSION FEASIBILITY STUDY

Targeted and timely patient education information is a key part of helping patients make informed choices to achieve behavior change and disease management goals.

Many patients face obstacles that make this challenging:

- Economic
- Technological
- Educational
HEALTH INFORMATION STATION

Have a health question?

Use our FREE online health library to find your answers.

Courtesy of Hope Fox Eccles Health Library.
BENEFITS OF HEALTH INFORMATION STATION

For patients
Information equity
Learn about authoritative information sources
Tailored information

For providers
Improved efficiency of clinic visits
Increased interaction with health care team
Enhanced adult learning
• Only 50% of HTN patients have their blood pressure under control despite treatment \(^1\)

• Limited understanding of HTN contributes to poor outcomes \(^2\)

• Patients who receive materials customized to health literacy level and learning style preference show gains in knowledge \(^2\)


Could patients improve their blood pressure and related health outcomes more effectively by utilizing health technology for tailored health information?
We hypothesized that offering an information session via the Station to patients with uncontrolled HTN would:

- Reduce time to achieve blood pressure goal
- Increase HTN-specific health literacy
- Increase patient engagement & self-management practices
- Increase patient satisfaction with their care

... when compared to standard of care
STUDY POPULATION AND DESIGN

Recruitment size: 100 patients
Age of Participants: 18-69 years old
Inclusion criteria: Uncontrolled HTN, primary or secondary
Exclusion criteria: Non-English; intellectual/cognitive impairments
Survey/questionnaire research
Interviews and focus groups
Prospective clinical research
Randomized
PRE AND POST ASSESSMENTS

1. HEALTH LITERACY
2. HYPERTENSION KNOWLEDGE
3. LEARNING STYLE PREFERENCES
4. PATIENT ACTIVATION LEVEL
5. PATIENT SATISFACTION

+ Blood pressure readings during clinic visits
PROTOCOL FOR INTERVENTION SESSIONS

Prior to session
Reviewed patient's chart in Epic
Reviewed assessment results
Identified most relevant information to share with patient

After session
Emailed/letter sent to patient
Entered Epic Telephone Encounter to close loop with PCP
TELEHEALTH SESSIONS

- Technology set in advance
- Introductions & brief tour of MedlinePlus
- Focused dive on HBP Health Topics page
- Address HBP Questionnaire & PAM scores
11 subject’s data were analyzed

Trend toward better BP control in intervention group
HTN knowledge increased in intervention group

Both groups showed improvement in engagement level

Both groups showed similar Patient Satisfaction scores
PARTICIPANT FEEDBACK

**Pros**
- Personalized information
- Distilling all the information
- Felt it was “correct” information
- Learned how to stay current on new information
- Technology very user friendly

**Cons**
- Talking with a stranger vs having the camaraderie of their doctor
- Wouldn’t make a trip to the clinic just to use the kiosk – would prefer to connect from home
FUTURE DIRECTIONS

• Establish telehealth patient access from home

• Integrate health librarians onto care teams

• Conduct full research study on different population
EMR-BASED OUTCOMES RESEARCH AROUND TAILORED PATIENT EDUCATION INFORMATION

Developing Epic-integrated Library services to provide

• Evidence-based clinical decision support information
• Tailored patient education information

... at the point of care
• Clinician needs patient-specific information to answer care questions

• Request information from patient’s chart without breaking clinic workflow

• Information seamlessly delivered via Epic within optimal turnaround time
Complements and builds on existing services

- Quick-answer Infobutton function
- Self-service clinical knowledge resources
- Patient education information
- Consumer health library

Service will be developed by interprofessional team

- Health sciences librarians
- Epic team
- Bioinformatics
- Providers from medicine, nursing, pharmacy, education
- Chief Medical Information Officer, Chief Medical Officer
FUTURE DIRECTIONS

• Contribute new EMR service models to the health sciences library field

• Partner with other organizations to conduct multi-site research studies on the effects of EMR-integrated library services on patient outcomes, health care costs, provider and patient satisfaction, etc.
LIBRARIANS HAVE MAD SKILLS TO CONTRIBUTE TO HEALTH LITERACY EFFORTS

• Evaluate health information
• Identify which information is best for different situations & people
• Connect patients with health information in context of their care
• Teach others how to find & evaluate quality information
• Disseminate research
• Champion the cause!
QUESTIONS?

Erica Lake

Erica.lake@Utah.edu

801-581-4684