The Importance of User Experience in Virtual Care

HIMSS MN 2017
May, 24 2017 1:00 PM

Kevin L. Smith, DNP, FNP, FAANP
Chief Clinical Officer

Scott Brown
VP of Product and Engineering, CISO
Zipnosis, Minneapolis, MN
The presenters have no conflicts of interest to report. Both presenters are employees of Zipnosis.
Objectives

Description: This session will discuss the role of user experience (UX) design for virtual care in driving patient engagement. Attendees will learn about the elements of UX, patient-centric virtual care user interfaces, and the potential impacts of UX on adoption and repeat use of virtual care, based on first-person, qualitative research.

Learning Objectives:

Attendees will learn

1. The correlation between digital health, specifically virtual care, and patient engagement.
2. The difference between user interface (UI) and user experience (UX), and the impact of each on virtual care adoption and repeat use.
3. Key components of user experience as it relates to virtual care, including the impact of age and computer literacy on UX design.
4. How redesigning a virtual care user interface based on user experience data can impact patient satisfaction.
Part 1: Patient as consumer

What does the patient want?
UX and Usability definitions

“a person's perceptions and responses resulting from the use and/or anticipated use of a product, system or service.”

- International Organization for Standardization (ISO)

<table>
<thead>
<tr>
<th>UX in healthcare Examples</th>
<th>Usability by environment Use cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ User Centered Design (UCD)</td>
<td>By care setting</td>
</tr>
<tr>
<td>➢ Human Centered Design (HCD)</td>
<td>By medical device</td>
</tr>
<tr>
<td>➢ Patient engagement</td>
<td>Patient software</td>
</tr>
<tr>
<td>➢ Chief Experience Officer (CXO)</td>
<td>Clinical workflow</td>
</tr>
</tbody>
</table>
Why UX for virtual care?

**Consumers**
- Shifting needs & preferences to favor virtual care delivery
- Demographics
- Tech savvy patients

**Health systems**
- Providers, employers seeking competitive advantage
- Provider shortages
- Appointment wait times
- Meaningful use
- Triple Aim
- Shifting payment models (VBC)

**Payers**
- Determining payment terms
- Commercial parity legislation
- Medicaid coverage and reimbursement for telehealth
Empathy: Walking in the shoes of the customer

Patient as the user

Patient as consumer

Patient engagement

Patient wants and needs
Brief background: Virtual care definitions

• Virtual Care vs. Traditional Telemedicine
• Access & efficiency (patient and provider)
• Adaptive interview
• Clinical quality focus
• Integrated CDS
Modes of Virtual Care

Real Time (Synchronous)
- Requires a live telecommunications connection
- Examples: Phone, video, chat

Store & Forward (Asynchronous)
- Digital capture of pt. histories, send to provider
- Images, video, audio, x-rays

Remote Monitoring (Synchronous or Not)
- Combo of real-time and store and forward
- Connected Devices
What does the patient want?

The Growth of Retail Clinics

Source: Convenient Care Association
On Demand Access: Retail (RHC) & Online Care

Visits / millions

RHC  Online

2013  7  6
2017  14  22

Adapted from Becker's Hospital Review. “Health System Strategy: Remaining Relevant by Building Primary Care Delivery Beyond Physician Employment.”
What do healthcare consumers want?
The same things they want in every industry:

- Providing great customer service
  - 53%
- Delivering on expectations
  - 42%
- Making life easier
  - 37%
- Offering great value
  - 39%

Source: McKinsey 2015 Consumer Health Insights Survey
Virtual What?

Consumer awareness of virtual healthcare

- 27% Never heard of it
- 36% Heard of it but know nothing
- 32% Know a little
- 5% Know a lot

Source: Accenture 2017 Consumer Survey on Virtual Health
Of those likely to use telemedicine - would use a provider other than their own for telemedicine if...

- If faster: 35%
- If costs less: 43%

2016 Deloitte Survey of US Healthcare consumers
Definitely **would use virtual care for:**

- Track my health status (Device) 77%
- Have a follow-up appointment 76%
- Health reminders 74%
- Get follow-up care after being hospitalized 74%
- Discuss a specific health concern 73%
- Get reminders to take my medications 72%
- Get daily support to manage an ongoing health issue 72%
- Have an exam for a non-urgent condition 70%

Source: Accenture 2017 Consumer Survey on Virtual Health
~50% surveyed across all ages – have no plans to use video.

Becker’s Hospital Review. “Health System Strategy: Remaining Relevant by Building Primary Care Delivery Beyond Physician Employment.”
Summary: What does the patient / consumer want?

**THIS**
- Convenience & cost
- Mode pref: Text or email (+phone)
- Mode adopted: Asynchronous

**OVER THIS**
- PCP loyalty
- Video
Part 2: UX project
Catalyst and Goals for UX Project

Catalyst:
• Low and highly variable Patient Satisfaction.
• High abandonment rate
• Very few repeat visitors
• Low Net Promoter Score (NPS)
• Frustrated customers who started their own UX projects

Goals:
• Create a best in class patient experience
• Reduce abandonment
• Increase repeat visitors
UX Process

Real World

Usability Lab

Concepting

Design

Define

Decompose

Develop

Integrate

Baseline

Themes

Specifications

Stories

Test Verification

Functional Verification

Internal Validation

Lab Validation

Performance Evaluation

2017
Usability Lab Baseline

Structure:
• Recruited typical users (primarily female ranging in age from 30-60).
• Participants were instructed to complete scenarios.
• Interactions were recorded and participants provided feedback.

Themes:
• Manage Expectations
• Demonstrate Empathy
• Intuitive and Lean Process
• Foster Trust

Learnings:
• Usability stratification based on age.
Concepting

Structure:
• Everyone on core team participated
• Reviewed inspiration and ideas
• Discussed favorite features and concepts
• Sketched out concepts and explained

Themes:
• Clear and concise design
• Empathetic and personalized experience
• Follow up on experience

Learnings:
• Everyone had at least one great idea.
• More great ideas than we knew what to do with
Design

• Sketches > HiFi Sketches > LoFi Wireframes > HiFi Wireframes > Design
Design

Before

Welcome to General eCare!
We're here to help you feel better... fast. Our team of clinicians treats more than 20 common medical conditions virtually. Create an account, complete a short online interview, and our team will review your information and send you a treatment plan within an hour.

How it works

- Online interview
- Diagnosis by a clinician
- Response within one hour
- Prescriptions sent instantly

Conditions we treat

All it takes is a short interview that gets sent to a clinician for diagnosis. You should have your treatment ready within an hour. We offer diagnosis and treatment for:

Cold, flu, and allergies
- Cold, sinus infection, or sore throat
- Hay fever/allergies

Minor eye conditions
- Pink-eye (conjunctivitis)
- Sty (bump or bumps on the eyelid)

After

Log in to General eCare

Email address
Password
Log in
Forgot your password?
Resend email confirmation

New to General eCare?

Create an account to get instant access to our 24/7 online diagnosis and treatment service.

Create account
## Design

### Before

#### Start Visit for

| Scott Brown | Willow Brown |

**Add new dependent**

#### Conditions we treat

All it takes is a short interview that gets sent to a provider for diagnosis. You should have your treatment ready within an hour. We offer diagnosis and treatment for:

### After

#### Open Visits

You currently have no Visits

#### Account information

**Primary**

| Scott Brown | Free |

**Dependents**

| Willow Brown | Not eligible |

#### Update profile
Design

Before

**John Doe**
Primary Account Holder

Current Visit Status:
- Clinician Response is Available

Cost per visit:
- Online: $50
- Phone: $50
- Video: $50

Start Visit

**Jane Doe**
Dependent

Current Visit Status:
- Pending Clinician Review

Cost per visit:
- Online: $50
- Phone: $50
- Video: $50

Start Visit

**Jill Doe**
Dependent

Current Visit Status:
- No active visits

Cost per visit:
- Online: $50
- Phone: $40
- Video: $50

Start Visit

After
Q & A

Questions and discussion
Thank you

For further information please contact
Kevin Smith, DNP, FNP, FAANP
kevin@zipnosis.com
References


2. Hibbard JH, Green J. What the evidence shows about patient activation: better health outcomes and care experiences; fewer data on costs. *Health Affairs, 32*, no. 2 (2013): 207-214


6. Additional references included in slides