

CHAI CORE

COMMUNICATION FOR HEALTH APPLICATIONS & INTERVENTIONS

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chaicore.com



facebook.com/uncchaicore



[@CHAICore](https://twitter.com/CHAICore)

CHAI CORE'S MISSION

To apply **state-of-the-art** resources and techniques to the development of high-quality and rigorously-evaluated **behavioral science interventions** aimed at health promotion and disease prevention in populations at risk



THE CORE FILLS A CRITICAL GAP IN EXISTING RESOURCES FOR RESEARCHERS BY...

1

facilitating access to science-based research relevant to communication, health behavior theory, intervention design, and evaluation, and

2

translation of that research into strategies and tools that can produce more effective interventions, with an emphasis on new and emerging technologies

WHO FUNDS CHAI?

**NCI P30
LCCC**

**NIDDK P30
NORC**

Recharge

CHAI CORE

**Grants &
Contracts**

**UCRF
(State Funding)**

CHAI-STER GROWTH



2000

1.5 FTE

2017

10.25 FTE

CHAI YEAR IN REVIEW 2016

1

Interdisciplinary
mHealth Workshops

20+

Manuscripts
(assisted)

115

Projects

75

Users

9,300

Total Client Hours

TECHNICAL DEVELOPMENT SERVICES



Websites

including intervention and decision aid websites



Mobile/Web-based applications



Back-end databases

for research content delivery and data collection



Tailored web-based message systems



Wearables integration

NUDGE

[PI: VALLE/TATE, GILLINGS INNOVATION LAB]

Native App to determine facilitators, barriers, time scales and contexts within which young adults adhere to self-monitoring behaviors (self-weighing, activity tracking); and evaluate effects of message manipulations delivered in response to lapse in self-weighing or tracker use.

CHAI Core...

- Designed and developed the native app
- Incorporated pulling remote scale, activity tracker, weather and GPS data.
- Delivered 'smart' messaging, i.e., messages not delivered while the phone is traveling in a car.

CHART [CAROLINA HEALTH ASSESSMENT AND RESOURCE TOOL]

PI: RIBISL/TATE/NOAR/MAYER, UCRF

The online version of CHART was developed by, and for, UNC researchers for use in their studies of behaviors related to cancer risk and other chronic conditions.



CHAI Core...

- Designed and developed the public site and researcher portal
- Built the engine for tailored output
- Conducted usability testing to deliver this superior resource for NORC and LCCC researchers

DESIGN



Graphic Design

Logo, Print, Web, Mobile



User Experience



Accessibility

QUALITATIVE SERVICES



Design and implementation
of qualitative research studies to support
intervention development and evaluation



Usability and cognitive testing

EHR DASHBOARDS

(PI: CHUNG, UNC SCHOOL OF MEDICINE)

Formative research focused on learning from providers how to better use patient-generated health data to improve clinical care through remote monitoring of patients with chronic conditions. The results will inform the creation of data visualization dashboards within Epic.



CHAI Core...

- Developed the interview guide
- Conducted one-on-one interviews with oncologists and primary care providers
- Provided in-depth analysis report

TEEN ASTHMA APP

(PI: CARPENTER, AMERICAN LUNG ASSOCIATION FUNDED)

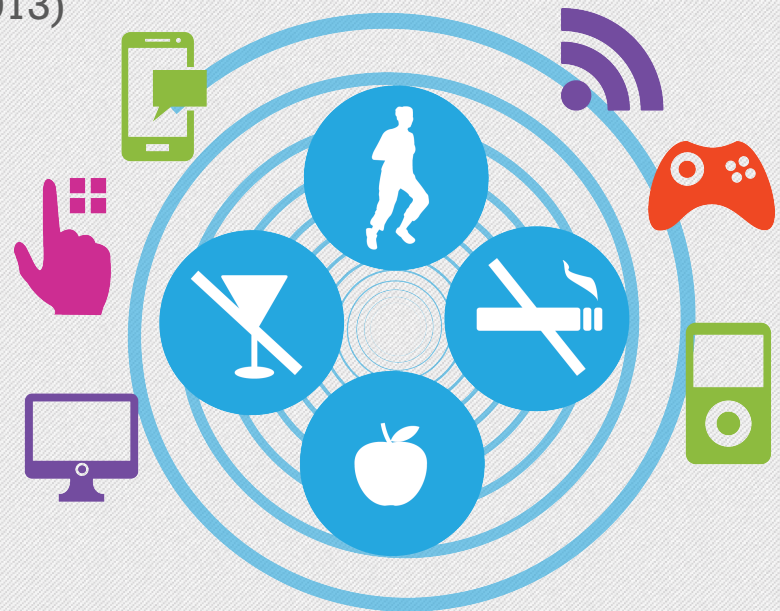
Formative research with adolescents diagnosed with asthma and members of their support network (parents, friends, and health care providers) to determine what ideal components to include in an asthma self-management mobile application.

CHAI Core...

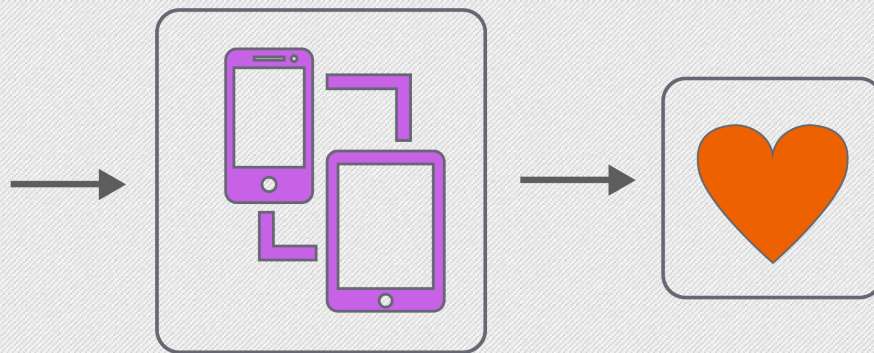
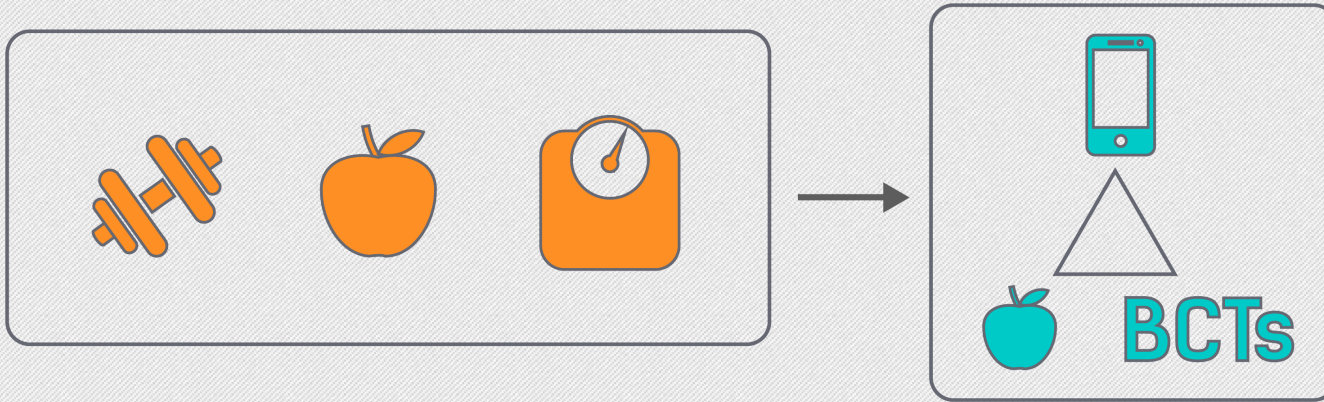
- Developed interview guide
- Conducted in-depth phone interviews with teens, parents, and friends
- Conducted usability testing with teens
- Designed prototype

BEHAVIOR CHANGE TECHNIQUE OVERVIEW

An “**active ingredient**”, or an **observable**, **replicable**, and **irreducible** component of an intervention designed to change or regulate behavior (e.g. feedback, self-monitoring, and reinforcement) - (Michie et al., 2013)



INTERVENTION ADAPTATION CONSULTING



Functional Design Project
Reviews examining what
BCTs are most effective in
producing change in
eInterventions

INTERVENTION CONSULTING

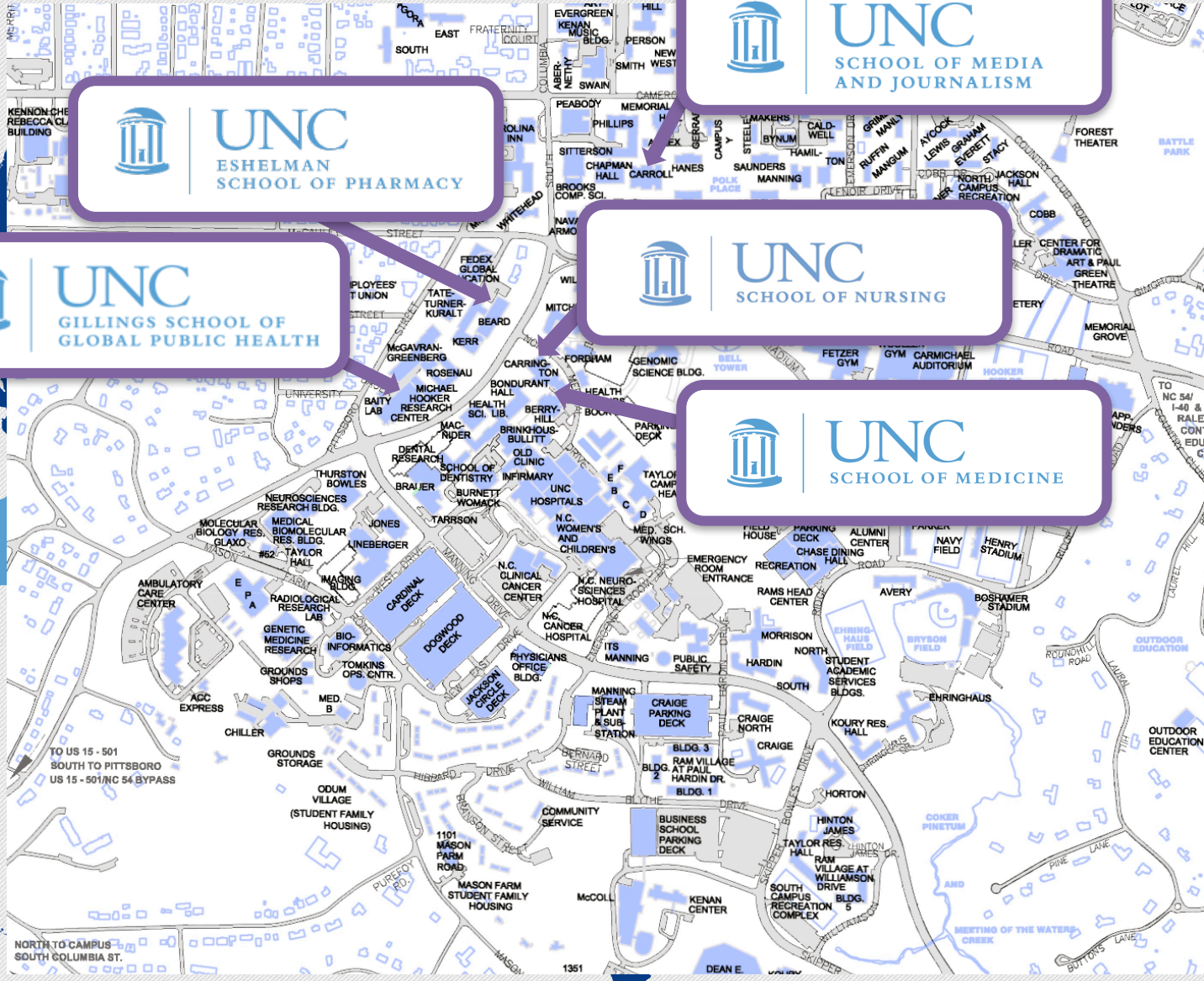
Trained personnel in:

Behavioral theory


Intervention planning

BCT Taxonomy (v1) coding
establishing inter-rater reliability

Manuscript support



 **UNC**
ESHelman
SCHOOL OF PHARMACY

 **UNC**
SCHOOL OF MEDIA
AND JOURNALISM

 **UNC**
GILLINGS SCHOOL OF
GLOBAL PUBLIC HEALTH

 **UNC**
SCHOOL OF NURSING

 **UNC**
SCHOOL OF MEDICINE

MULTI INSTITUTION & VENDOR COLLABORATIONS

Work with **Twilio** to provide text messaging services – both send and receive – to study participants

Work with **Validic** to integrate client use of wearable devices like FitBIT

Provide client services to broad spectrum...

ABC's of the BCT's

Lunch and Learn Workshop

The Behavior Change Technique (BCT) Taxonomy a new language in behavioral science and interventions

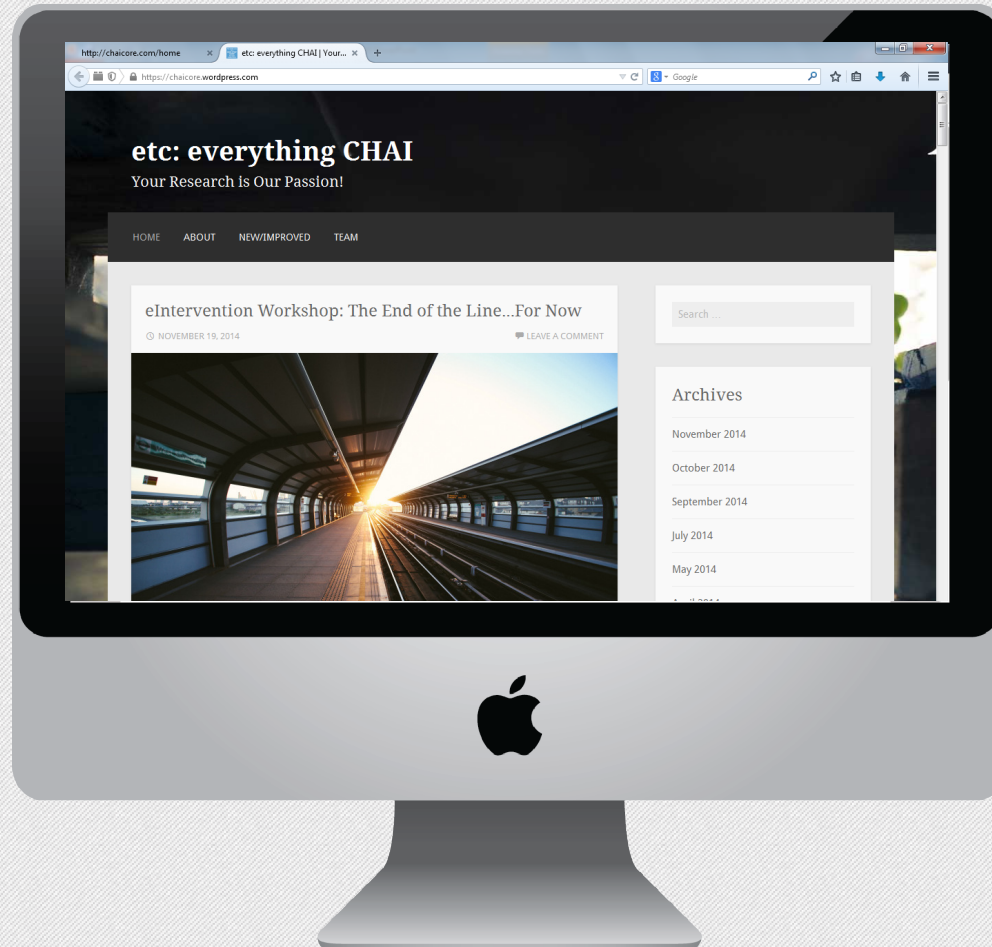
- What makes Fitbit more than just a cool bracelet?
- What makes that health App on your phone more than just education or entertainment?

October 18th 12-1:30 HSL rm527

WEBSITE



BLOG



BI-MONTHLY eHEALTH DIGEST & RESEARCHER SPOTLIGHT



Avatars and Tailoring and Coaches -Oh My!

eHealth Digest

October 2015, Issue 5.0



Exactly one year ago today, CHAI Core was hosting our spooktacular eIntervention Workshop, focused on highlighting the "active ingredients" of technology-based interventions. Using an additive design, [A Randomized Trial of an Avatar-Hosted Multiple Behavior Change Intervention for Young Adult Smokers](#) (2013), An and colleagues were able to examine their own



eHealth Researcher Spotlight

Temitope Erinoso

THRIVE for Health



Taking center stage this month is the wonderful Dr. Temitope Erinoso, Research Assistant Professor of Nutrition at UNC, and her innovative approach to obesity and cancer risk prevention in children from low-income families. Currently, she is developing a family-based life skills intervention (THRIVE for Health) to help low-income parents develop psychosocial skills to better navigate their daily challenges and promote healthy weight behaviors in their

preschool aged children.

Dr. Erinoso has been working with CHAI Core to complete the formative phase of her study, *Understanding concerns, needs, and challenges of low-income parents of preschool children aged 3-5 years old*. CHAI Core conducted and analyzed the results of 10 in-depth interviews and 4 focus groups with low-income parents in rural and urban areas of North Carolina to assess their needs.