Implementing web-based interventions at VA: case studies in diabetes prevention and cognitive behavioral therapy for women Veterans

Julian Brunner, MPH
Alison Hamilton, PhD, MPH

VIReC Cyberseminar Series:
Using Data & Information Systems in Partnered Research

Acknowledgements

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EMPOWER Investigators:

- Tannaz Moin, MD, MBA, MSHS[1,2,3]
- Ariel Lang, PhD[4]
- Sabine Oishi, PhD[1,2]
- Bevanne Bean-Mayberry, MD, MHS, FACP[1,2,4]
- Melissa Farmer, PhD[1,2]
- Dawn Glover, MA[1,2]
- Erin P. Finley, PhD, MPH[5]

(1) VA Greater Los Angeles Healthcare System
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Disclaimer

The views expressed are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States Government.

Today's Presentation

Case studies of implementing web-based interventions from EMPOWER QUERI:

- Online DPP (Diabetes Prevention Program)
- Computer-assisted CBT (Cognitive Behavioral Therapy)

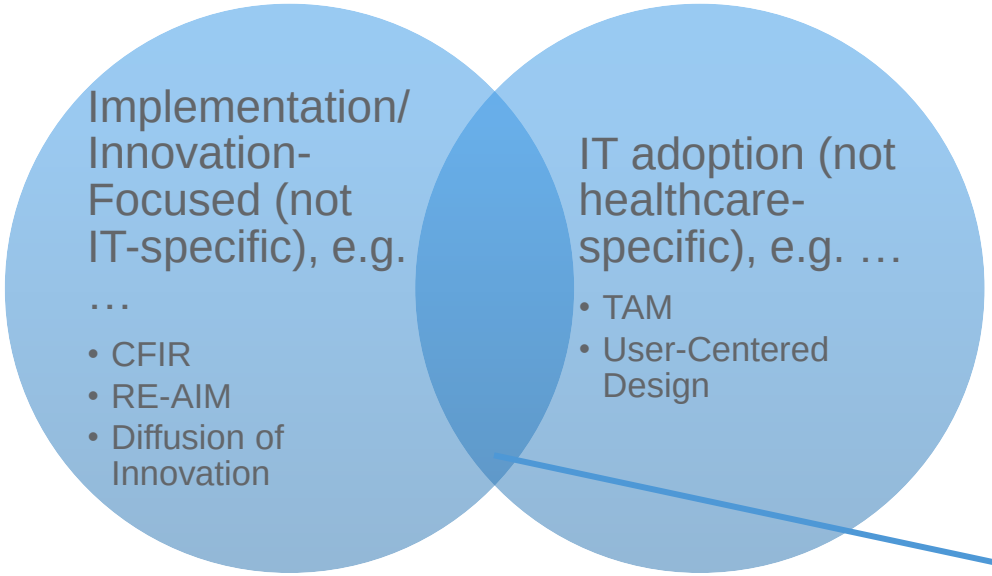
Poll Question #1: What is your role in the VA?

- Research investigator/PI
- Data manager, analyst, or programmer
- Project coordinator
- Clinical or operations staff
- Other – please describe via the Q&A function

Poll Question #2: Has development or evaluation of health IT interventions been a part of your job?

- Yes, a big part
- Yes, a small part
- No, it hasn't

Background: Frameworks



Health IT Frameworks, e.g. Sociotechnical model (Sittig & Singh)

Lessons

(things that were important or challenging in unexpected ways)

App introduction and training

Contracts and partnerships

Integration with existing systems

Collecting and using feedback

CASE 1: ONLINE DPP

PI: Tannaz Moin, MD, MBA, MSHS
Co-PI: Sally G. Haskell, MD

Background: Diabetes Prevention Program (DPP)

- **2002:** DPP study was published in the NEJM

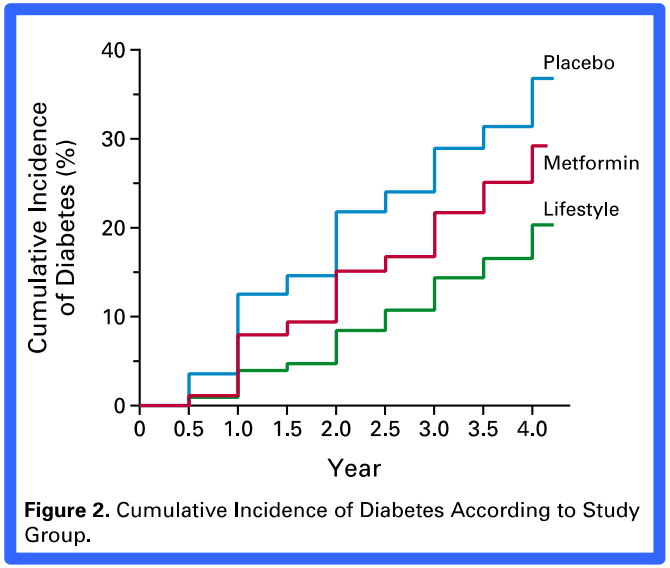


Figure 2. Cumulative Incidence of Diabetes According to Study Group.

  - 58% relative diabetes risk reduction with intensive lifestyle interventions

- **2018:** 15+ years of evidence showing diabetes can be delayed or prevented with metformin or intensive lifestyle interventions

Compare & contrast w/ MOVE!

MOVE!

- 8-12 core sessions (6 months)
- Variable goals
- Isolated topics in each session
- Open groups, multiple instructors
- Target all overweight/obese

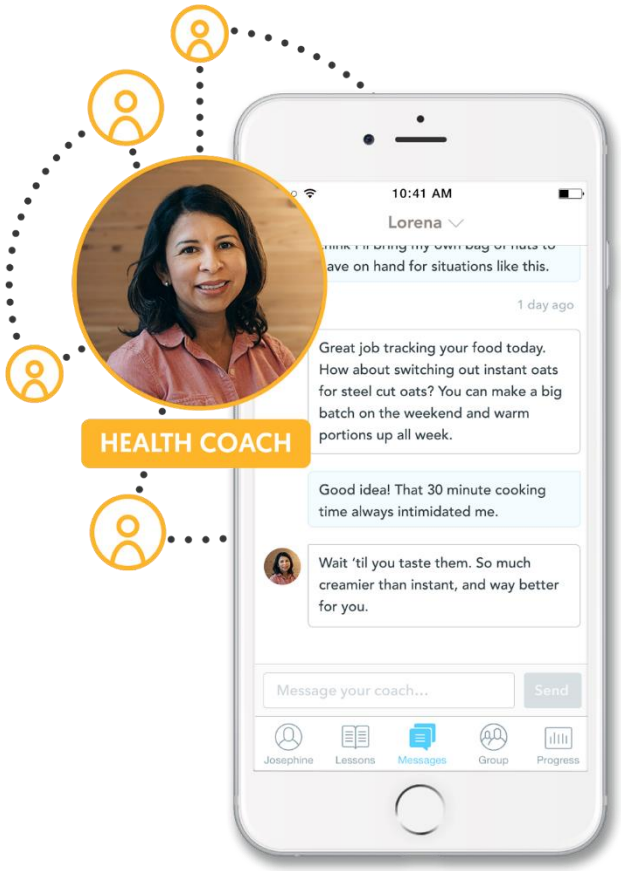
DPP

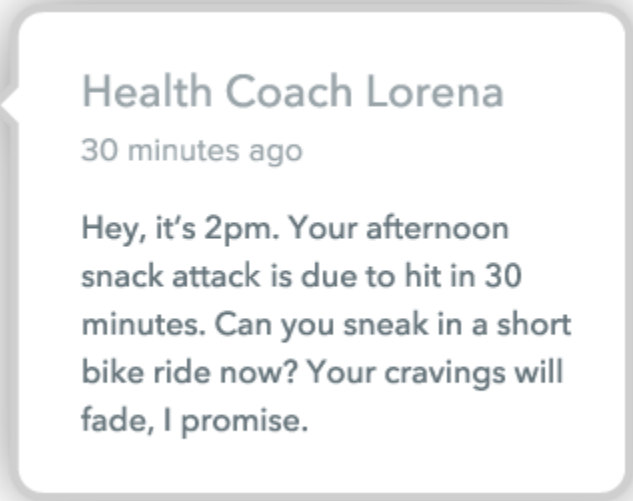
- 16 core sessions (6 months)
- Standardized goals
- Linked sessions with skill building
- Closed groups, single instructor
- Target those with prediabetes

Online DPP

- Why:
  - Weekly in-person sessions may not be possible for women Veterans with competing demands
- What:
  - Human coaching
  - Online group w/ messaging
  - Online lessons
  - Wireless scales, smartphone integration

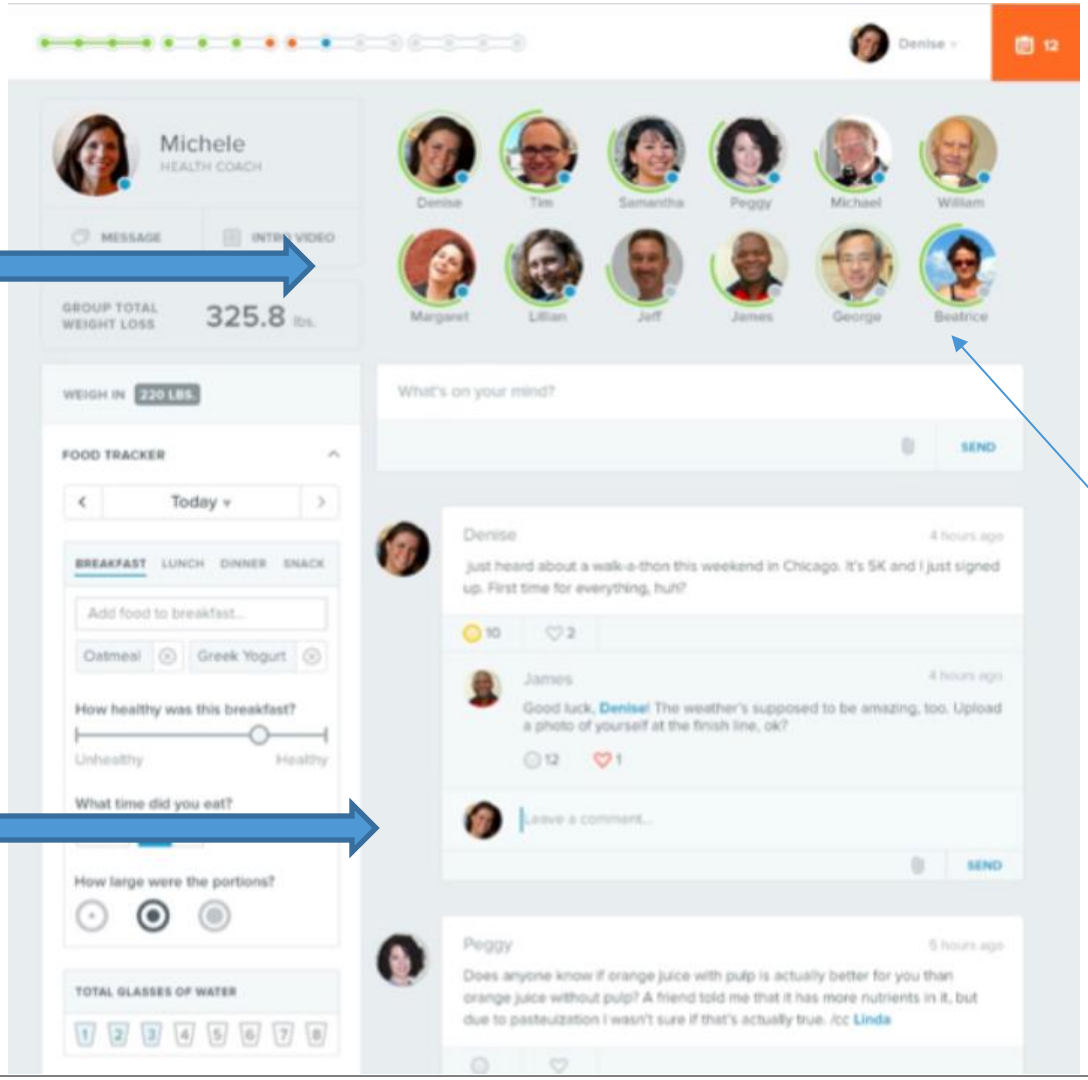
Human Coaching





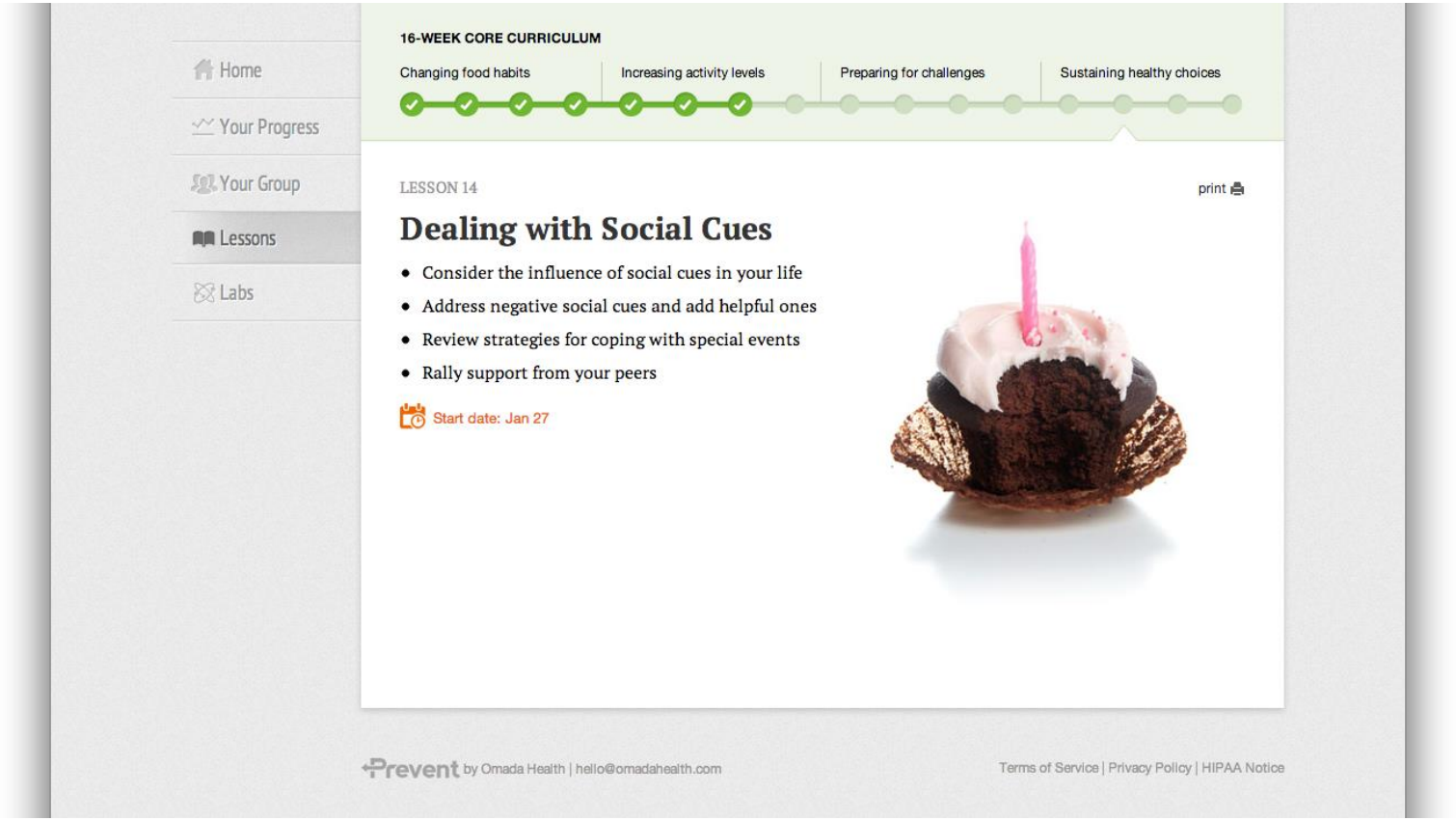
Online Group

Messaging



Visual displays of progress (green circles around pics)

Online Lessons



Wireless Scales & Smartphone Integration

Online DPP: Implementation

DPP: App introduction and training

- Directly to patients: letters and follow-up calls
  - Identified prediabetes in CPRS
  - Offered in-person or online DPP
  - Website and code for linking
- Helpdesk

DPP: Collecting and using feedback

- From patients
- From providers
- From “implementers”

DPP: Contracts and partnerships

- Barriers as vendor grew:
  - Not always women-only groups
  - Proprietary data

- Implications:
  - Contracting expertise
  - Vendor as partner

DPP: Integration with existing systems

- What extent of integration with CPRS is appropriate for a direct-to-patient program?

CASE 2: COMPUTER-ASSISTED COGNITIVE BEHAVIORAL THERAPY

PI: Alison Hamilton, PhD, MPH
Co-PI: Ariel Lang, PhD

Background: Coordinated Anxiety Learning & Management (CALM)

Delivery of Evidence-Based Treatment for Multiple Anxiety Disorders in Primary Care

A Randomized Controlled Trial

Peter Roy-Byrne, MD
Michelle G. Craske, PhD
Greer Sullivan, MD, MSPH
Raphael D. Rose, PhD
Mark J. Edlund, MD, PhD
Ariel J. Lang, PhD
Alexander Bystritsky, MD
Stacy Shaw Welch, PhD
Denise A. Chavira, PhD
Daniela Golinelli, PhD
Laura Campbell-Sills, PhD
Cathy D. Sherbourne, PhD
Murray B. Stein, MD, MPH

Implementation of the CALM intervention for anxiety disorders: a qualitative study

Geoffrey M Curran[1,2*], Greer Sullivan[1,3], Peter Mendel[4], Michelle G Craske[5], Cathy D Sherbourne[4], Murray B Stein[6], Ashley McDaniel[3] and Peter Roy-Byrne[7,8]

Who Gets the Most Out of Cognitive-Behavioral Therapy for Anxiety Disorders?:

The Role of Treatment Dose and Patient Engagement

Daniel Glenn, MA[a], Daniela Golinelli, PhD[b], Raphael D. Rose, PhD[a], Peter Roy-Byrne, MD[c], Murray B. Stein, MD, MPH[d], Greer Sullivan, MD, MSPH[e], Alexander Bystritksy, MD[f], Cathy Sherbourne, PhD[b], and Michelle G. Craske, PhD[a]

Original Implementation in VA (Little Rock, AR)

Cucciare *et al. Implementation Science* (2016) 11:65
DOI 10.1186/s13012-016-0432-4

Implementation Science

STUDY PROTOCOL Open Access

Assessing fidelity of cognitive behavioral therapy in rural VA clinics: design of a randomized implementation effectiveness (hybrid type III) trial

Michael A. Cucciare[1,2,3,4*], Geoffrey M. Curran[1,2,5], Michelle G. Craske[6], Traci Abraham[1], Michael B. McCarthur[1], Kathy Marchant-Miros[1], Jan A. Lindsay[3,4,7,8], Michael R. Kauth[3,4,7,8], Sara J. Landes[1,2,3,4] and Greer Sullivan[9]

"Calm Tools for Living"

Collaborative Care for Women Veterans (CCWV)

Care Management Functions	CCWV Element (each locally tailored)
Initial MH assessment of patients referred by PCP	Care manager (CM) conducts baseline MH assessments, medication history, etc.
Women with anxiety and/or depression offered treatment choices	Treatment choices are medications, CALM CBT, or both
Women requiring specialty treatment receive support to access resources	Care manager inquires about preferences, facilitates warm hand-off, follows up with patient
Symptoms and emergent problems monitored	CM uses structured MH assessments to monitor treatment response
Patient education and activation	If patient chose medication, CM provides education; if chose CBT, they use CALM
Decision support	CM uses stepped care protocol under supervision

Computer-assisted CBT: Implementation

CBT: App introduction and training

- Care managers are the most direct users
- Staggered implementation: first site experience informs training at next site

CBT: Contracts and partnerships

- Partnership w/ Little Rock VA to use program already adapted for VA

CBT: Integration with existing systems

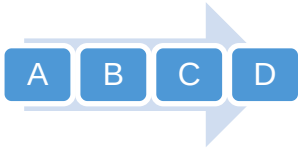
- Existing system has some of the same assessment tools (e.g., “Behavioral Health Lab”)
  - Which one is “primary”?
  - Info transfer?

- App artifacts in patient record?

CBT: Collecting and using feedback

- From patients, care managers, "implementers"

- Feedback:
  - Physical space constraints with shared computer use
  - Flexibility



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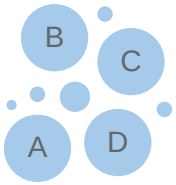

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Thank You!/Questions?

Contact:
Julian.Brunner@va.gov
Alison.Hamilton@va.gov

Next Session: Tuesday, May 22nd at 12pm Eastern

Using Data & Information Systems in Partnered Research Cyberseminar Series

Designing Performance Feedback about Goals of Care Conversations in VA CLCs & HBPC sites

Zach Landis-Lewis, PhD
University of Michigan