Behavior Change Design for Products People Actually Use

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WHAT DOES A BEHAVIOR CHANGE DESIGNER DO?
BEHAVIOR CHANGE DESIGNERS...
Facilitate the ability of people to work toward goals by designing interventions that address barriers to target behaviors and promote conditions that are favorable to target behaviors.
BEHAVIOR CHANGE DESIGNERS . . .

Live in between

UX

Behavior Science
BEHAVIOR CHANGE DESIGNERS CAN TARGET:

**Effective Engagement**
To ensure just the right dose, exposure, and cadence of interventions to achieve results.

**Uptake**
To overcome barriers to awareness and attention, interest, intentions, and follow-through.

**Behavior Change**
To identify target behaviors for change, and techniques to shift behaviors to desired patterns.

**Action**
Testing ensures efficacy of implementation, reach, adoption, retention, and overall outcomes.
THE BEHAVIOR CHANGE DESIGN PROCESS

Diagnose  
Prescribe  
Implement  
Evaluate
WHICH ONES ARE BEHAVIORS?

- Walking in the park
- Feeling confident
- Taking a pill
- Losing weight
- Wanting to make a change
- Being happy
- Reading a chapter a night
- Saving $100 a month
- Preparing for retirement
- Practicing Spanish vocabulary
WHICH ONES ARE BEHAVIORS?

BEHAVIOR ZONE

★ Walking in the park
★ Taking a pill
★ Reading a chapter a night
★ Saving $100 a month
★ Practicing Spanish vocabulary

NOPE

★ Feeling confident
★ Losing weight
★ Wanting to make a change
★ Being happy
★ Preparing for retirement
SELECTING TARGET BEHAVIORS

- Which behaviors are most related to the project’s big KPIs or outcome goals?
- Do you have access to the people who do that behavior?
- Can you influence them within the constraints of your toolkit?
NOT ALL BEHAVIORS ARE EQUAL

- Complexity of behavior in context
- Complexity of behavior change approach

- Clicking on a link
- Learning to run and training for a race
- Medication adherence with side effects
- Managing a chronic health condition with comorbidities, medication, diet, exercise
BUILDING AN OUTCOMES PLAN

- Baseline measurements
- Participation & engagement (exposure metrics)
- Behavior changes
- Long-term outcomes

Measurement time frame

Leading → Lagging
## Building an Outcomes Plan

<table>
<thead>
<tr>
<th>Baseline Measurements</th>
<th>Participation and Engagement (Exposure Metrics)</th>
<th>Behavior Changes</th>
<th>Long-term Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 0, measure via questionnaire during onboarding</td>
<td>Day 0 &amp; ongoing, measure via internal database</td>
<td>Measure via survey every 3 months</td>
<td>Measure annually via EMR data or health claims data</td>
</tr>
</tbody>
</table>

### Baseline Measurements
- Blood pressure
- Cholesterol
- Weight
- Taking medication (y/n)

### Participation and Engagement (Exposure Metrics)
- Registrations for app
- Visits
- Articles read
- Actions logged

### Behavior Changes
- Doctor appointment
- Prescription filled
- # days medication taken per month
- Minutes walked per week

### Long-term Outcomes
- Blood pressure, cholesterol, weight
- Cost savings from less ER use
- Fewer heart attacks & strokes

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**Leading**

**Measurement time frame**

**Lagging**
Interventions are products, experiences, or communications designed to get people to act differently than they would otherwise.

They can affect:

- **What** people do
- **How often** they do it
- **How long** they do it for
- **When** they do it
INTERVENTIONS

NAGBOT

I'm Nagbot and I'm here to nag
I'll regularly text you asking you whether you did something and keep track of your answers. I'm free to use and allow 1 nag per phone number.

Create a nag
Track my nag

Meet Woebot

Your personal life coach for thinking better & feeling great

Get Started

Log In

Hey there, welcome to Headspace.

TAP ANYWHERE TO CONTINUE

Stash Invest

As of Mar 2, 1:04 PM EST

Portfolio Value:
$105.00

Total Return:
+0.00%

Next Milestone:
$250.00

Stash Coach


Made with love by AirDev
NOT REALLY INTERVENTIONS
UNDERSTANDING BEHAVIOR IN CONTEXT

BEHAVIOR CHANGE THEORIES AND FRAMEWORKS

These are just some of the top models that social scientists use to think about behavior and behavior change.

- Acceptance and commitment therapy
- Behavioral economics*
- Cognitive behavioral therapy
- COM-B model & the behaviour change wheel
- Culture capital framework
- DEFRA 4Es model
- Diffusion of innovation theory
- EAST framework
- Environmental policy framework
- Epicure taxonomy
- EPOC taxonomy of interventions
- Fogg behavior model*
- Framework on public policy in physical activity
- Goal setting theory
- Habit formation (plus *Hooked*)*
- Health action process approach
- Health beliefs model
- Implementation taxonomy
- Information motivation behavioral skills model
- Injury control framework
- Intervention mapping
- Legal framework
- MINDSPACE
- Motivational interviewing
- People and places framework
- Population Services International (PSI) framework
- RURU: Intervention implementation taxonomy
- Self-determination theory of motivation
- Social cognitive theory
- Social ecological model
- Social norms theory
- Taxonomy of behaviour change techniques
- Theory of planned behavior
- Theory of reasoned action
- Transtheoretical model (stages of change)*
CHOOSING A FRAMEWORK:

• Is it applicable to your topic or problem area?

• Does it have a strong, recent evidence base?

• If you use it, will it yield useful action items given the project you’re working on?
THE COM-B MODEL

- **CAPABILITY**: Psychological or Physical ability to enact the behavior
- **MOTIVATION**: Reflective and Automatic mechanisms that activate or inhibit behavior
- **OPPORTUNITY**: Physical and Social environment that enables behavior

- **BEHAVIOR**
TYPES OF MOTIVATION: SELF DETERMINATION THEORY

AMOTIVATED
I have no desire to do this.

EXTERNAL
Someone told me I have to do this.

INTROJECTED
I’ve internalized the nagging: Better do this.

IDENTIFIED
Doing this will help me achieve goals I really value.

INTEGRATED
Doing this is part of who I am.

INTRINSIC
I love doing this; it feels great!

CONTROLLED

AUTONOMOUS

Long-term change happens here!

SUPPORT FUNDAMENTAL PSYCHOLOGICAL NEEDS TO GUIDE STUDENTS TOWARD BETTER MOTIVATIONAL QUALITY

- Autonomy
- Competence
- Relatedness

“"I can make my own meaningful choices”

“I am learning, growing, and succeeding.”

“I am part of something bigger than myself. I belong.”

**Recommendations for pilot**

In other areas, the proposed user experience may be adjusted to accommodate the behavior change strategy. The planned feedback and research will help to clarify the specific adjustments. Some areas of adjustment may include:

- **Testing alternative navigations.** Recognizing that some users may not always see the full-screen limited-use (e.g., instructions for initial implementation) or have access to frequently consulted (e.g., patient instructions or log sheets) content, the implementation plan is structured to emphasize accessibility to the more frequent and important content. The implementation plan proposes testing 2-3 versions of the navigation and interface options with users and patients in Phase 2.

- **Adding mid-week patient outreach.** Because there are users who may have difficulty following the protocol to track weekly SMBP readings, incorporating some kind of outreach to patients on the first few days of the 7-day protocol is on track and provide an opportunity to ensure patients are on track and provide an opportunity to improve adherence to the protocol and encourages patients to remain in the protocol post-pilot.

- **Adding live patient support.** Along the same lines, patients should be able to implement the protocol in their daily lives and have ongoing support available without jeopardizing the quality of the results, particularly during the first period or the first weeks of SMBP as a treatment component. The implementation plan includes a mechanism for patients to ask questions (e.g., via phone or email), and access to the protocol support team.

- **Call out patient resources in protocol.** The UX guide currently features "L�ucK" materials. Mad*Pow recommends creating an annotated list of resources and materials in the protocol so practitioners can easily select the appropriate materials via phone or email.

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**PATIENT PAYMENT BEHAVIOR: LITERATURE REVIEW**

**RESEARCH CITED AND REVIEWED**


WHEN IS MORE KNOWLEDGE NEEDED?

Some interventions may call for additional subject matter expertise . . . for example

- Highly regulated product environment (e.g. pharmaceuticals, medical devices, investment products, etc.)
- Complex medical issues that need to be addressed with clinical protocols (e.g. behavioral health, diabetes prevention program [DPP])
- Deep knowledge about a specific population needed (e.g. cross-cultural work, work on vulnerable populations)
BUILDING THE THING!

“commitment”

“self-monitoring of behavior”

“goal setting”

Mindfulness Goals

Set your mindfulness practice schedule

Which days of the week will you practice mindfulness?

Mon Tue Wed Thu Fri Sat Sun

How long will you practice for in each session?

10 min

Reminder

SAVE MY SCHEDULE

Sample BCT image from Marta Denkiewicz, https://www.panacea.digital/2019/02/18/behaviour-change-design/
TESTING FOR EFFECTIVENESS AND EFFICACY

- Randomized control trials (RCTs)
- Quasi-experimental studies
- Real-world comparisons
- Pre-/post-evaluations
- Case studies
- Surveys
REMEMBER: OUTCOMES TELL YOUR STORY
OTHER ROLES BEHAVIOR CHANGE DESIGNERS PLAY

★ **Subject matter expert:** Providing insight into particular theories or topics relevant for a project

★ **Business development support:** Identifying behavior change needs and ensuring adequate coverage is built into proposals

★ **Spot review and consulting:** Collaborate to identify areas where behavior change is relevant to include in projects focused on other areas

★ **Continuing education:** Spend time staying current on research in the field especially as it’s relevant to professional responsibilities

★ **Marketing and thought leadership:** Share our experience and perspective to establish our reputation and attract the clients we want to work with
PRACTICING BEHAVIOR CHANGE
DESIGN
BRINGING BEHAVIOR CHANGE DESIGN INTO YOUR WORK

★ Start small and build!
★ Try 1-2 tactics now
★ Be mindful of growing your skillset
★ Remember you can call on experts to augment and support your efforts
ENGAGED: DESIGNING FOR BEHAVIOR CHANGE

- Available in paperback and e-reader versions
- RosenfeldMedia.com or Amazon
- Use code ENGAGEDCHXD at RosenfeldMedia.com for 20% off
A conference focused on improving health experiences through strategic design. Founded eight years ago, the conference attracts more than 500 executives, innovators, practitioners, entrepreneurs, and clinicians.

April 14 & 15, 2020
Boston, MA

Registration now open! www.hxdconf.com
CONFERENCES & WEBINARS

★ APA’s “How Did You Get That Job?” series
★ CHXD
★ HxD and FxD
★ Professional organization conferences (APA, APS, AOM, etc.)
★ Design and UX conferences
★ Industry (e.g. healthcare or financial services, Behavior, Energy, & Climate Change) events
★ Check Meetup, local chapters of UXPA, Action Design Network, etc. for evening and weekend events
SOCIAL MEDIA & NEWSLETTERS

* Twitter
  - #digitalhealth
  - #behaviorchange

* Slack
  - UXPA International
  - Local UXPA chapters
  - Ethical Technology
  - Rosenfeld Media
  - BetterBehavior
  - Innovation Learning Network

* CHXD Mobilize community

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**Habit Weekly**
Best behavioral design content of the week
By [Samuel Salzer](https://www.samuel-salzer.com)

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**Nir & Far**
The latest on Business, Behavior, and the Brain.
DISCUSSION