Phases of design thinking: empathy problem definition ideation
Phases of design thinking:
- empathy
- problem definition
- ideation
- prototyping
Phases of design thinking:
- empathy
- problem definition
- ideation
- prototyping
- testing
Phases of design thinking:

- empathy
- problem definition
- ideation
- prototyping
- testing
- iteration
Phases of design thinking: empathy
Phases of design thinking: problem definition
Phases of design thinking: problem definition
Phases of design thinking: ideation
Phases of design thinking: prototyping
Phases of design thinking: testing
Phases of design thinking: iteration
Phases of design thinking:

- empathy
- problem definition
- ideation
- prototyping
- testing
- iteration
A design-focused healthcare company is possible.
What if we redefined the problem?

Global Burden of Disease
Interestingly...
Why discuss the chronic care model?
The Chronic Care Model

Community
- Resources and Policies
- Self-Management Support

Health Systems
- Organization of Health Care
- Delivery System Design
- Decision Support
- Clinical Information Systems

Informed, Activated Patient
Productive Interactions
Prepared, Proactive Practice Team

Improved Outcomes

What if we redefined the problem as poor outcomes for depression?
Iterations of the Chronic Care Model: “Collaborative Care”

1995 “CC” → 2001 IMPACT → 2010 TEAMcare
Phases of design thinking:  
empathy  
problem definition  
ideation  
prototyping  
testing  
iteration
Collaborative Management to Achieve Treatment Guidelines

Impact on Depression in Primary Care

Wayne Katon, MD; Michael Von Korff, ScD; Elizabeth Lin, MD, MPH; Edward Walker, MD; Greg E. Simon, MD, MPH; Terry Bush, PhD; Patricia Robinson, PhD; Joan Russo, PhD

Objective.—To compare the effectiveness of a multifaceted intervention in patients with depression in primary care with the effectiveness of "usual care" by the primary care physician.

Design.—A randomized controlled trial among primary care patients with major depression or minor depression.

Patients.—Over a 12-month period a total of 217 primary care patients who were recognized as depressed by their primary care physicians and were willing to take antidepressant medication were randomized, with 91 patients meeting criteria for major depression and 126 for minor depression.

Interventions.—Intervention patients received increased intensity and frequency of visits over the first 4 to 6 weeks of treatment (visits 1 and 3 with a primary

SIGNIFICANT advances in medical therapy are not always reflected in everyday clinical practice.¹ Translating a treatment's biomedical efficacy into practical effectiveness often requires significant changes in the knowledge and attitudes of both physicians and patients, as well as changes in the organization of health care delivery. Efforts to develop guidelines for clinical practice are a response to this gap between knowledge and practice.²³
This is almost 25 years ago. 😊

---

### Billboard Year-End Hot 100 singles of 1995

From Wikipedia, the free encyclopedia

This is a list of *Billboard* magazine's Top **Hot 100** songs of 1995.\(^1\)

<table>
<thead>
<tr>
<th>№</th>
<th>Title</th>
<th>Artist(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&quot;Gangsta's Paradise&quot;</td>
<td>Coolio featuring L.V.</td>
</tr>
<tr>
<td>2</td>
<td>&quot;Waterfalls&quot;</td>
<td>TLC</td>
</tr>
<tr>
<td>3</td>
<td>&quot;Creep&quot;</td>
<td>TLC</td>
</tr>
<tr>
<td>4</td>
<td>&quot;Kiss from a Rose&quot;</td>
<td>Seal</td>
</tr>
<tr>
<td>5</td>
<td>&quot;On Bended Knee&quot;</td>
<td>Boyz II Men</td>
</tr>
<tr>
<td>6</td>
<td>&quot;Another Night&quot;</td>
<td>Real McCoy</td>
</tr>
<tr>
<td>7</td>
<td>&quot;Fantasy&quot;</td>
<td>Mariah Carey</td>
</tr>
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<td>8</td>
<td>&quot;Take a Bow&quot;</td>
<td>Madonna</td>
</tr>
<tr>
<td>9</td>
<td>&quot;Don't Take It Personal (Just One of Dem Days)&quot;</td>
<td>Monica</td>
</tr>
<tr>
<td>10</td>
<td>&quot;This Is How We Do It&quot;</td>
<td>Montell Jordan</td>
</tr>
</tbody>
</table>
Phases of design thinking: empathy, problem definition, ideation, prototyping, testing, iteration
“Core Principles of Effective Collaborative Care”

**Patient-Centered Care Teams**
- Team-based care: effective collaboration between PCPs and Behavioral Health Providers.

**Population-Based Care**
- Patients tracked in a registry: no one ‘falls through the cracks’.

**Measurement-Based “Treat to Target”**
- Measurable treatment goals clearly defined and tracked for each patient
- Treatments are actively changed until the clinical goals are achieved – “treat to target”

**Evidence-Based Care**
- Treatments used are ‘evidence-based’
- Pharmacology, brief psychotherapeutic interventions, models

IMPACT Collaborative Care Model *Incarnate*

**Collaborative Team Approach**

- **PCP**
- **Patient**
- **BHP/Care Manager**
- **Consulting Psychiatrist**
  - **Other Behavioral Health Clinicians**
  - ** Substance Treatment, Vocational Rehabilitation, CMHC, Other Community Resources**

Core Program

Additional Clinic Resources

Outside Resources

http://uwaims.org
Phases of design thinking: empathy, problem definition, ideation, prototyping, testing, iteration
The IMPACT Data

Doubles Effectiveness of Care for Depression

### IMPACT Data, Savings

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>4-year costs in $</th>
<th>Intervention group cost in $</th>
<th>Usual care group cost in $</th>
<th>Difference in $</th>
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</thead>
<tbody>
<tr>
<td>IMPACT program cost</td>
<td></td>
<td>522</td>
<td>0</td>
<td>522</td>
</tr>
<tr>
<td>Outpatient mental health costs</td>
<td>661</td>
<td>558</td>
<td>767</td>
<td>-210</td>
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<tr>
<td>Pharmacy costs</td>
<td>7,284</td>
<td>6,942</td>
<td>7,636</td>
<td>-694</td>
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<tr>
<td>Other outpatient costs</td>
<td>14,306</td>
<td>14,160</td>
<td>14,456</td>
<td>-296</td>
</tr>
<tr>
<td>Inpatient medical costs</td>
<td>8,452</td>
<td>7,179</td>
<td>9,757</td>
<td>-2578</td>
</tr>
<tr>
<td>Inpatient mental health / substance abuse costs</td>
<td>114</td>
<td>61</td>
<td>169</td>
<td>-108</td>
</tr>
<tr>
<td>Total health care cost</td>
<td>31,082</td>
<td>29,422</td>
<td>32,785</td>
<td>-$3363</td>
</tr>
</tbody>
</table>
What if we redefined the problem as poor outcomes for depression and diabetes?
<table>
<thead>
<tr>
<th>Name</th>
<th>A1c (initial)</th>
<th>A1c (recent)</th>
<th>PHQ9 Initial</th>
<th>PHQ9 Recent</th>
<th>SBP Initial</th>
<th>SBP Recent</th>
<th>Non-HDL Initial</th>
<th>Non-HDL Recent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary (new)</td>
<td>9.5</td>
<td>--</td>
<td>21</td>
<td>--</td>
<td>125</td>
<td>--</td>
<td>115</td>
<td>--</td>
</tr>
<tr>
<td>Todd</td>
<td>9.2</td>
<td>7.3</td>
<td>15</td>
<td>4</td>
<td>145</td>
<td>135</td>
<td>245</td>
<td>150</td>
</tr>
<tr>
<td>John</td>
<td>10.7</td>
<td>8.2</td>
<td>13</td>
<td>6</td>
<td>155</td>
<td>138</td>
<td>195</td>
<td>122</td>
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<tr>
<td>Gregor</td>
<td>8.9</td>
<td>7.1</td>
<td>22</td>
<td>11</td>
<td>135</td>
<td>137</td>
<td>168</td>
<td>110</td>
</tr>
<tr>
<td>Lucy</td>
<td>11.2</td>
<td>9.4</td>
<td>18</td>
<td>13</td>
<td>163</td>
<td>132</td>
<td>213</td>
<td>145</td>
</tr>
<tr>
<td>Bess</td>
<td>9.8</td>
<td>7.4</td>
<td>25</td>
<td>8</td>
<td>149</td>
<td>137</td>
<td>218</td>
<td>125</td>
</tr>
</tbody>
</table>
Collaborative Care for Patients with Depression and Chronic Illnesses

Wayne J. Katon, M.D., Elizabeth H.B. Lin, M.D., M.P.H., Michael Von Korff, Sc.D., Paul Ciechanowski, M.D., M.P.H., Evette J. Ludman, Ph.D., Bessie Young, M.D., M.P.H., Do Peterson, M.S., Carolyn M. Rutter, Ph.D., Mary McGregor, M.S.N., and David McCulloch, M.D.
What if we redefined the problem as poor outcomes for schizophrenia?
Alternative to Mental Hospital Treatment

I. Conceptual Model, Treatment Program, and Clinical Evaluation

Leonard I. Stein, MD, Mary Ann Test, PhD

- A conceptual model for the development of community-based treatment programs for the chronically disabled psychiatric patient was developed, and the results of a controlled study and follow-up are reported. A community-treatment program that was based on the conceptual model was compared with conventional treatment (ie, progressive short-term hospitalization plus aftercare). The results have shown that use of the community program for 14 months greatly reduced the need to hospitalize patients and enhanced the community tenure and adjustment of the experimental patients. When the special programming was discontinued, many of the gains that were attained deteriorated, and use of the hospital rose sharply. The results suggest that community programming should be comprehensive and ongoing.

(Arch Gen Psychiatry 37:392-397, 1980)

patients' homes weekly or less often to provide drugs and supportive therapy. In the Langsley and Kaplan study, the home treatment was family-crisis therapy that was aimed at teaching the patient ways of handling crises without hospitalization. In the Rittenhouse project, the home treatment consisted of family-unit therapy as developed by Satir. All three studies found that at least 77% of the experimental (E) patients could be kept out of the hospital continuously as long as the home treatment was in effect.

Three controlled studies expanded the generality of the alternative to mental-hospital research to patients who did not have a stable home situation by demonstrating the possibility of treatment in a nonfamilial, residential setting. Irvin D. Rutman, PhD, (unpublished data, October 1971) diverted a random sample of nonassaultive or suicidal
## Billboard Year-End Hot 100 singles of 1980

From Wikipedia, the free encyclopedia

This is a list of *Billboard* magazine's Top **Hot 100** songs of **1980**.[1][2]

<table>
<thead>
<tr>
<th>No</th>
<th>Title</th>
<th>Artist(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&quot;Call Me&quot;</td>
<td>Blondie</td>
</tr>
<tr>
<td>2</td>
<td>&quot;Another Brick in the Wall, Part II&quot;</td>
<td>Pink Floyd</td>
</tr>
<tr>
<td>3</td>
<td>&quot;Magic&quot;</td>
<td>Olivia Newton-John</td>
</tr>
<tr>
<td>4</td>
<td>&quot;Rock with You&quot;</td>
<td>Michael Jackson</td>
</tr>
<tr>
<td>5</td>
<td>&quot;Do That to Me One More Time&quot;</td>
<td>Captain &amp; Tennille</td>
</tr>
<tr>
<td>6</td>
<td>&quot;Crazy Little Thing Called Love&quot;</td>
<td>Queen</td>
</tr>
<tr>
<td>7</td>
<td>&quot;Coming Up&quot;</td>
<td>Paul McCartney</td>
</tr>
<tr>
<td>8</td>
<td>&quot;Funkytown&quot;</td>
<td>Lipps Inc</td>
</tr>
<tr>
<td>9</td>
<td>&quot;It's Still Rock and Roll to Me&quot;</td>
<td>Billy Joel</td>
</tr>
<tr>
<td>10</td>
<td>&quot;The Rose&quot;</td>
<td>Bette Midler</td>
</tr>
</tbody>
</table>
Interestingly...
Behavioral health has much to contribute to innovation in healthcare service delivery.
Behavioral health service delivery models are well-designed because they have the person’s experience in mind and recognize fundamental principles of chronic illness management.
Medicine is a social science and politics is nothing else but medicine on a large scale. Medicine as a social science, as the science of human beings, has the obligation to point out problems and to attempt their theoretical solution.

- Virchow
I have three primary objectives today:

1. There was once a time when these roamed the earth.

2. Poor design.

3. Collaborative Care for Patients with Depression and Chronic Illnesses

Wayne J. Katon, M.D., Elizabeth H.B. Lin, M.D., M.P.H., Michael Von Korff, Sc.D.,
Paul Ciechanowski, M.D., M.P.H., Everett J. Ludman, Ph.D.,
Bessie Young, M.D., M.P.H., D.S. Peterson, M.S., Carolyn M. Butter, Ph.D.,
Mary McGregor, M.S.N., and David McCulloch, M.D.

2010
Using Design Methodology to Drive Innovation in Healthcare Service Delivery

Erik Vanderlip, M.D.
Medical Director for Primary Care, Behavioral Health, Telemedicine and Urgent Care for ZOOM+Care

Apply principles of the design process, including empathy, problem definition, ideation, prototyping, testing and iteration towards creatively innovating healthcare service delivery.

Reframe healthcare reform as a challenge of delivering services for chronic illness.

Abstract aspects of the chronic illness model to applicable behavioral health services.
Questions?