Using Design Thinking to Improve Patient-Provider Communication in the Emergency Department

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Quality Issue

In the setting of overcrowding, the ED has emerged as a site of significant patient safety concern, with data suggesting that capacity constraints lead to increased adverse events, treatment delays and mortality as well as frustration among staff.
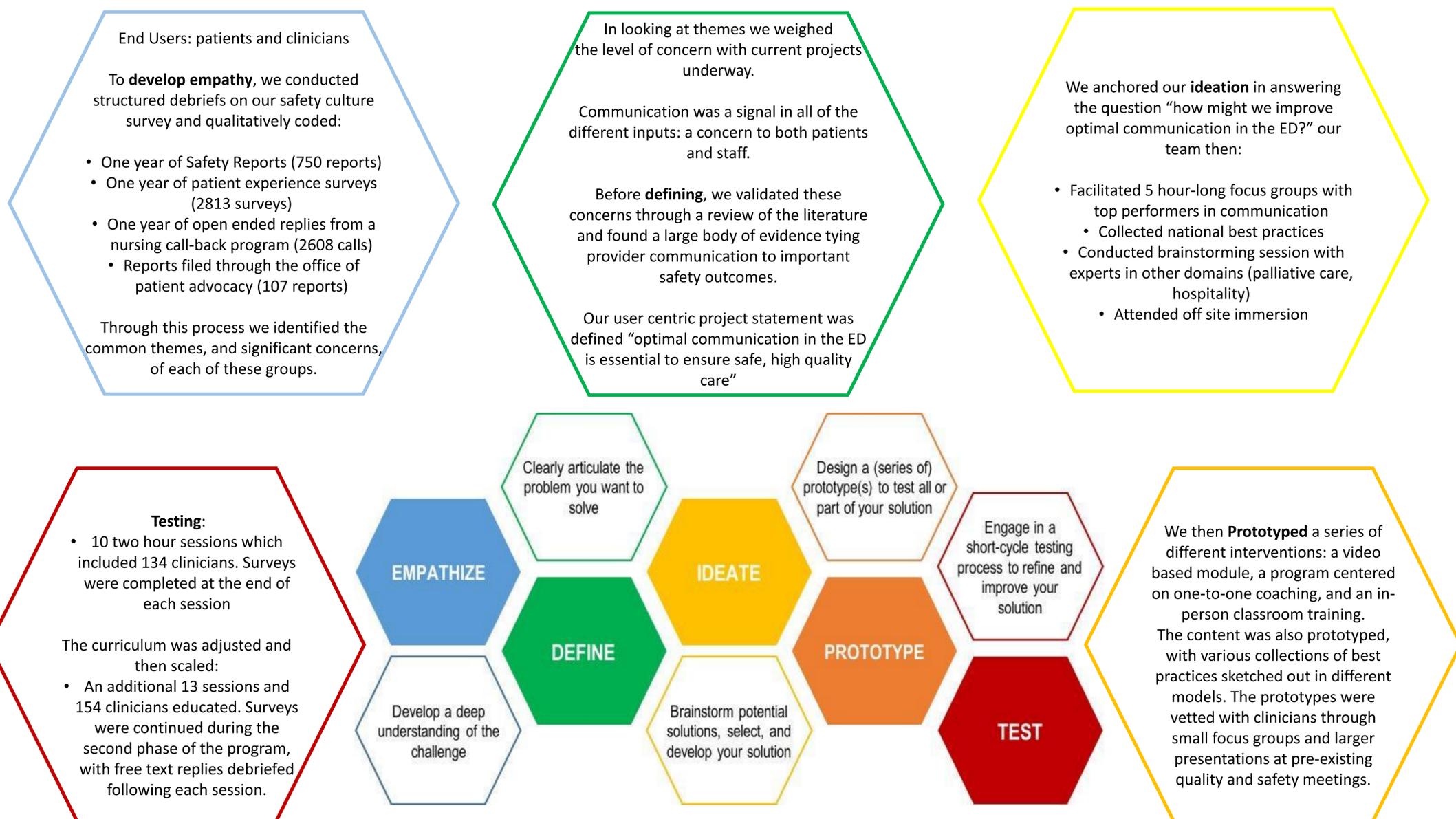
Initial Assessment

In the setting of a rapidly growing ED, we were faced with a marked increase in safety concerns. This, combined with concern about caregiver burnout and a recognition that the efforts underway to increase ED capacity would take time, created a growing interest in undertaking a focused project that would help mitigate safety risk in the setting of overcrowding.

Choice of a Solution

Design thinking is an improvement methodology that, although widely used in business and technology, has not yet been broadly adopted in healthcare. This human-centered design process prioritizes empathy for end-users, and a process of engaging early with those that are most effected by the process or product being designed. Best applied early in the innovation process, Design Thinking has been recognized as a tool that differs from other process improvement methodologies in its ability to shepherd projects through abstract problems that lack clear, concrete solutions.
As conceptualized by the Sandford D.School, Design Thinking takes projects through five steps: Empathize, Define, Ideate, Prototype and Test.
Given the relative abstraction of our focus area, we selected Design Thinking as the methodology to apply.

End Users: patients and clinicians

To **develop empathy**, we conducted structured debriefs on our safety culture survey and qualitatively coded:

- One year of Safety Reports (750 reports)
- One year of patient experience surveys (2813 surveys)
- One year of open ended replies from a nursing call-back program (2608 calls)
- Reports filed through the office of patient advocacy (107 reports)

Through this process we identified the common themes, and significant concerns, of each of these groups.

In looking at themes we weighed the level of concern with current projects underway.

Communication was a signal in all of the different inputs: a concern to both patients and staff.

Before **defining**, we validated these concerns through a review of the literature and found a large body of evidence tying provider communication to important safety outcomes.

Our user centric project statement was defined "optimal communication in the ED is essential to ensure safe, high quality care"

We anchored our **ideation** in answering the question "how might we improve optimal communication in the ED?" our team then:

- Facilitated 5 hour-long focus groups with top performers in communication
- Collected national best practices
- Conducted brainstorming session with experts in other domains (palliative care, hospitality)
- Attended off site immersion

Testing:
- 10 two hour sessions which included 134 clinicians. Surveys were completed at the end of each session

The curriculum was adjusted and then scaled:
- An additional 13 sessions and 154 clinicians educated. Surveys were continued during the second phase of the program, with free text replies debriefed following each session.

We then **Prototyped** a series of different interventions: a video based module, a program centered on one-to-one coaching, and an in-person classroom training.
The content was also prototyped, with various collections of best practices sketched out in different models. The prototypes were vetted with clinicians through small focus groups and larger presentations at pre-existing quality and safety meetings.

EMPATHIZE — Develop a deep understanding of the challenge

DEFINE — Clearly articulate the problem you want to solve

IDEATE — Brainstorm potential solutions, select, and develop your solution

PROTOTYPE — Design a (series of) prototype(s) to test all or part of your solution

TEST — Engage in a short-cycle testing process to refine and improve your solution

Lessons Learned

Design Thinking offered an innovative, agile method for process improvement that was ideal for our relatively abstract problem. Although likely not an ideal method for a problem that is well understood, this method holds great promise for many of the increasingly patient-centered initiatives that are underway.

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