Curriculum Development by Design Thinking: Analyzing a Program for Social Determinants of Health Screening by Pre-Clerkship Medical Students

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Introduction

- Social determinants of health (SDOH) disproportionately impact patient health outcomes.1 Health systems science (HSS) curricula in medical schools facilitate an understanding of SDOH.2
- Sidney Kimmel Medical College, Clinical Experience (CE) program:
  - Patient-centered application of the HSS curriculum.
  - First 2-years CE program was rated poorly by students.
  - Implementation of a design thinking methodology to improve the CE program.

Objective

- We sought to determine if the CE program could be improved (as measured by enhanced student program evaluations) by reforming the curriculum using a design thinking workshop (design sprint) involving student and faculty stakeholders.

Methods

Study Design, Materials, & Population:

- Retrospective analysis of end-of-year, anonymous survey response of the CE program by 1st-year medical students were compared in the academic years before (2018-19) & after (2019-20) the design-driven curricular changes.

Analysis:

- Chi-squared comparisons of common survey questions from pre- and post-intervention.

Results

Figure 1: Core principles of design thinking

Figure 3: Likert responses to survey questions that were common before & after the curriculum changes

Conclusion

- CE program surveys:
  - 142 students in 2018-19, (survey response rate = 51% [142/274])
  - 171 students in 2019-20, (survey response rate = 63% [171/273])

- Overall positive survey results significantly increased across all 3 survey questions that were common to the pre- and post-intervention academic years (Figure 4; p<0.01), indicating an improved student experience.

- Importantly, this approach to curricular change does not require investment in technology or infrastructure; rather, it relies on a belief that co-creation and co-design with medical students may result in a superior educational experience.

Limitations/ Future Directions

- Future studies should work to ensure higher student participation in end-of-year surveys to evaluate student opinion more representatively.

- It is unclear whether the entire design thinking process or only specific steps are required to effectively revamp an educational program. It is possible that a well-run focus group with inclusion of relevant stakeholders would produce similar results.

References

3) www.jeffce.com

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