Student-Led Project-Based Consulting Projects Improve Medical Student Self-Efficacy and Community Healthcare Delivery

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PROBLEM STATEMENT

The traditional medical school curriculum places emphasis on developing didactic clinical skills and medical scholarship. However, the curriculum lacks opportunities to build business acumen or practical understanding of healthcare operations, which may leave **students underprepared for the complex leadership roles** they will undertake as physicians[1].

Figure 1: Select roles medical students may undertake in their careers as physicians in addition to providing patient care.

INNOVATION STRATEGY

DetroitX Innovations & Consulting (DxIC) is a **project-based student consulting initiative** from Wayne State University School of Medicine created to address this gap in medical education.

Using an adapted Define, Measure, Analyze, Improve, and Control (DMAIC) methodology[2], medical student teams work closely with Detroit-area community partners to **create and deliver actionable strategies** that are maximally impactful. Projects include quality improvement, vendor analysis, and marketing strategy.

Figure 2: Summary of general DMAIC methodology and sample key activities of project process.

AIMS

The aims of this consulting initiative are to:

1. Provide medical students with exposure to real-world healthcare problems

2. Develop tangible solutions that can improve community healthcare delivery

METHODS

- Assessment of how this consulting initiative has impacted community partners and medical student project teams utilizes self-reported five-point Likert scale questionnaires.

- Unpaired student T-tests will be conducted on survey responses for **medical students** (project start and endpoint) and **community partners** (project midpoint and endpoint) to evaluate effects on self-perceived professional competencies and operational impact, respectively.

RESULTS

- **Feedback from past community clinic partners** who previously completed projects with DxIC unanimously agreed that medical student teams had excellent communication skills, excelled in goal setting, and provided reasonable recommendations for their businesses.

- Although data collection continues for our current projects, we expect the project process to yield **significant improvements** in 1) how medical students self-perceive professional skills and analyze business operations, and 2) service efficiency and patient impact for our community partners.

SURVEY OUTLINE

Medical Students – Professional Competencies
Surveyed at project start and endpoint

- Defining and executing projects
- Interacting professionally with clients + team
- Managing project deadlines + client expectations

Community Partners – Clinical Impact
Surveyed at project midpoint and endpoint

- Projected impact on business operations
- Likelihood of implementing recommendations
- Willingness to partner with DxIC on another project to further improve healthcare delivery

Table 1. Outline of topics covered in Likert surveys to medical students and community partners.

CONCLUSIONS

- Real-world consulting projects can be unique opportunities for medical students to **develop business and reasoning skills** outside of the standard curriculum.

- Community partners can **improve the quality of their healthcare delivery** at no cost.

- Similar programs at other medical schools and healthcare centers should be encouraged.

REFERENCES

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