

Unlikely Bedfellows:

Community-Based Service-Learning as a Platform for a Quality Improvement Curriculum

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Disclosures

None

Objectives

- On completion of this session the participants should be able to...
 - **Develop curriculum** to implement experiential learning for enhanced understanding of social determinants of health and quality improvement concepts.
 - **Identify** quality improvement **learning objectives** for service-learning experiences.
 - **Discuss strategies for embedding quality improvement principles into service-learning experiences.**
 - **Explain the benefits and potential barriers** of implementation of service learning and quality improvement curricula during pre-clinical medical education.
 - **Discuss solutions to the barriers and challenges** of medical student service-learning curricula and quality improvement curricula.

Audience Poll

- Do you have service-learning as part of your school's curriculum?
- Does your service-learning include pre-clinical or clinical students?
- Does your service-learning incorporate quality improvement initiatives?

Background

Experiential learning can provide real-world context when teaching

- Social determinants of health
- Health disparities
- Population health
- Community assessment
- Quality improvement

Background

Aims:

- Help students contextualize the role of the physician in promoting health in their community
- Help students understand the impact that the social and environmental factors have on the health of their patients.
- Facilitate real world application of quality improvement principles

Background

Methods:

- Integrate service-learning curriculum with existing community organizations
- Students develop and propose a quality improvement project in partnership with service-learning organization
- Opportunity for implementation and data collection

Key Concepts

- Must differentiate between community service and service learning
 - Structured reflection and discussion critical
- “Drop-In” service not as beneficial as longitudinal experiences
 - Over 20 hours of service higher impact

Student Benefits

- Increased awareness of community needs
- More believed they could make a difference
- More committed to service in the future

Audience Poll

- What are some barriers or challenges to implementing a service-learning based curriculum?
- What are some barriers with maintaining a service-learning based curriculum?

Introduction to Patient Care (IPC): Service-Learning

- IPC 3: Psychosocial Aspects of Medicine –Integrates service-learning into teaching health disparities and social determinants of health
- IPC 4: Clinical Epidemiology, Evidence-Based Medicine and Population Health – Applies concepts of “Community Needs Assessments” to our own community
- University of Missouri Office of Service-Learning: Well-established, structured, community partnerships in place, administrative support for placement and evaluations

Extending continuity experience through IPC 3 and IPC 4 allows for 16 weeks of service learning.

Introduction to Patient Care (IPC): Service-Learning

- Required for all first-year students
- Expectation is minimum of 20 hours of service
 - 9 hours during Block 3
 - 12 hours during Block 4
- Students are provided with a list of community organizations and self-select based on interests
- Students set service schedule based on their availability

Timeline

- November
 - Introduction lecture given to students
 - List of available sites provided
 - Students complete survey to rank sites
- December
 - Placements finalized
- January
 - Start of Block 3
 - Welcome lecture given to students
 - Orientation begins
- March
 - Start of Block 4
- May
 - End of Block 4

Introduction to Patient Care: Service-Learning

- Ideal Community Organizations:
 - Chosen based on recommendations from MU Office of Service-Learning and patient exposure
 - Active engagement with patients/clients
 - Students able to review site descriptions
 - Some sites required longer commitments or higher service hour obligations
 - Not all clinical sites
 - Student-run free clinic most popular choice

Community Partners

- Eat Healthy, Stay Active (CMCA)—Early Childhood education and support
- Central Missouri Foster and Adopt
- Central Missouri Therapy — SPOT Speech and Language Preschool
- City of Refuge—Refugee services
- Coyote Hill—Foster home organization
- First Chance for Children—Child/family education and support services
- Moving Ahead—After School Program
- Special Olympics
- The Bluffs—Nursing home
- MedZou—Student-run free health clinic
- Preferred Hospice
- Refugee and Immigration Services
- Tiger Connect—Pediatric clinic supplemental social services



Psychosocial Determinants of Health: Reflection Prompts

IPC 3 Week 1 – Guided Reflection during Lecture

- *Reflect for a moment on the reasons you chose your service site.*
 - *What are you hoping to learn from the experience?*
 - *What are you hoping to bring to your organization?*
 - *Do you have any apprehensions about the experience?*
 - *What are you most excited about?*

Psychosocial Determinants of Health: Reflection Prompts

IPC 3 Week 8 – Written Reflection

- *Thinking about your experiences so far, what observations can you make about the social determinants of health at your community organizations?*
 - *How is this similar or different from how the social determinants of health have affected your own life options and personal health?*
- *Before starting at your organization, what were your expectations? Have you been surprised by any unconscious biases or stereotypes that have been uncovered while at your service learning sites?*

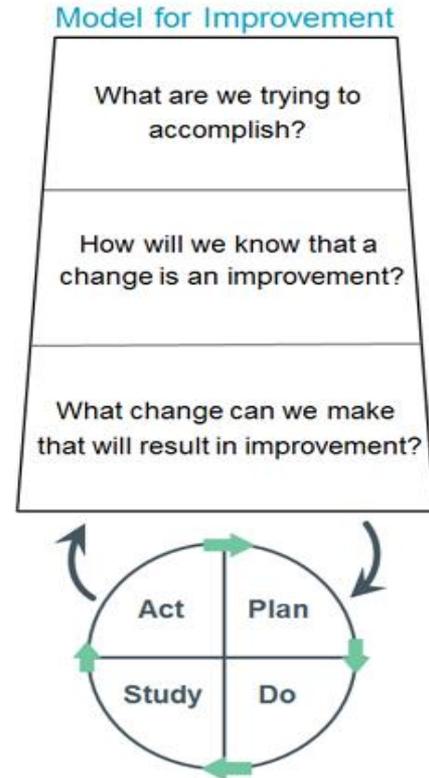
Quality Improvement Project: Objectives

At the end of the project, students will be able to:

- Apply principles of data collection and outcome analysis learned in IPC 4
- Conduct an organizational needs assessment
- Develop methods for data collection
- Develop a project proposal
- Integrate Service-Learning experience with principles of community health

QI Curriculum Overview

- Week 1, Day 1:
 - Lecture “Intro to QI”
 - Outlines Plan-Do-Study-Act process of QI development
 - Provides example from real-world QI projects
- Week 2, Small group activity:
 - Service-Learning Debrief
- Week 5, Small group activity:
 - QI project check-in
- Week 8:
 - Presentation of QI proposals in small group sessions
- Post-Course:
 - Option to voluntarily implement QI project, with faculty mentorship



Service-Learning/QI Final Project

- Develop and Present a QI project proposal
 - Include proposed implementation and evaluation metrics
- Project should address a need identified by student and organization facilitator
 - Recognize stakeholders within the organization
 - Keep scope of the project feasible
 - Include measurable objectives and “product”
- Students worked in small groups with others assigned to the same service-learning site

QI Reflection Prompts

IPC 4 **Week 1** – Small Group Sharing

Discuss your Service Learning experiences in your IPC 4 small groups:

1. What is the name and mission of your Service-Learning Organization
2. Describe the patient population and specific health care need(s) that this organization serves.
3. Describe the structure of the organization. How is it funded?
4. **What “problems” (or opportunities for improvement or innovation) have you identified for your quality improvement project?**

QI Reflection Prompts

IPC 4 **Week 5** – Small Group Sharing

Present a 3-5 minute PowerPoint presentation in small group with the following information:

1. What “Problem” will you choose to address?
2. Present to the group TWO proposed interventions to address the above problem.
3. For each of the proposed interventions, where would they fall on a 2x2 Effort vs Yield table? Why? (Show your 2X2 Yield/Effort Table)
4. Which intervention do you plan to propose? If you are having trouble deciding, you may use 2-3 minutes for brainstorming with your entire small group.

	Low Yield	High Yield
Low Effort	Low Effort, But Low Yield	Low Effort, AND High Yield 
High Effort	High Effort, Low Yield	High Effort, High Yield

Service-Learning Final Project

IPC 4 Week 8 – Small Group Sharing

- Present service-learning project to the IPC 4 small group
- PowerPoint presentation (5 min maximum). Include:
 - “Problem” to be addressed
 - Fishbone diagram
 - 2X2 Yield vs Effort table
 - Proposed Intervention
 - Aim Statement
 - Outcomes to be measured
- Grades—Professionalism grade based on completion of hours, participation in small group discussion, and project quality and feasibility

Final Project—EXAMPLE

- MedZou Student-Run Free Clinic
 - Intervention: Scanning paper document into electronic format
 - Four students currently working on project
 - In-process, post-project data pending



Student Feedback

Favorable

- Some students loved service learning
 - “Playing my trumpet at Adult Day Care made me feel like a human again”
- Students liked sites with direct patient/client interaction
- Students appreciated sites that were well organized
- Some plan to continue to volunteer at their service learning sites
- Overall assignments and scheduling went well

Less Favorable

- Intentionally open-ended—Some students struggled with ambiguity
- Some students felt like they “had done enough community service to get into medical school”, felt it deterred from study time
- Students didn’t like organizations that asked them to do what they perceived as menial tasks

Challenges and Solutions

Pandemic

Challenge

- limited student volunteer experiences – some were unable to complete 20 hour expectations or had superficial virtual exposure to sites
- Exposure to Covid following volunteer experiences

Solutions

- Coordination with sites with remote experience options –telehealth visits, phone consults
- Permitting decreased hours requirements

Challenges and Solutions

Professionalism

Challenge

- Student non-participation

Solutions

- Facilitators at service-learning sites track, report attendance (via established process with Office of Service Learning)
- Unsatisfactory professionalism grade with remediation of service-learning

Challenges and Solutions

Placement Opportunities

Challenge

- Students seeking placement with service-learning not on pre-approved site list

Solutions

- Application for non-affiliated site approval
- Some sites have been added to affiliated site list based on student application and experience

Challenges and Solutions

Site Satisfaction

Challenge

- Sites requesting non-client facing tasks (administrative, maintenance etc)

Solutions

- Encouraging students to advocate working to highest skill level with site supervisors
- Mid-block check in during small group
- Communication to sites via Office of Service-Learning
- Ability to reassign sites
- Yearly reassessment of site list

Brainstorming - Open Forum

- How to maximize student engagement?
- Ways to promote deeper connections / learning?
- Required components vs elective experiences?
- Recognizing student contributions that are exemplary?

- Other Challenges and Barriers?

Questions

Evaluation

Please be sure to complete an evaluation for this presentation.

References

- Buckner, A. V., Ndjakani, Y. D., Banks, M. B., & Blumenthal, D. S. (2010). Using service learning to teach community health: the Morehouse School of Medicine Community Health Course. *Academic medicine: journal of the Association of American Medical Colleges*, 85(10), 1645.

Stewart, T., Wubbena, Z. (2014). An overview of infusing service learning in medical education. *International Journal of Medical Education*. 5:147-- 156. DOI 10.5116/ijme.53ae.c907

Essa-Hadad, J., Murdoch-Eaton, D., & Rudolf, M. C. J. (2015). What impact does community service learning have on medical students' appreciation of population health?. *Public Health*, 129(11), 1444-1451. doi : 10.1016/j.puhe.2015.05.009

Goldman J, Kuper A, Baker GR, Bulmer B, Coffey M, Jeffs L, Shea C, Whitehead C, Shojania KG, Wong B. Experiential Learning in Project-Based Quality Improvement Education: Questioning Assumptions and Identifying Future Directions. *Acad Med*. 2020 Nov;95(11):1745-1754. doi: 10.1097/ACM.0000000000003203. PMID: 32079957.

