Multi-Method Evaluation of an Interprofessional Primary Care Education and Training Program

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Objectives

• Outline IMPACcT, our interprofessional primary care training and education program.
• Describe our strategies for evaluation, focusing on ways we are integrating quantitative and qualitative methodologies.
• Describe ways we are utilizing data for program improvement.
Five-year PCTE Grant. Collaborators:

• The Donald and Barbara Zucker School of Medicine at Hofstra Northwell—Medical Students, PA Students

• Northwell Division of General Internal Medicine—IM Residents; Clinical Health Psychology Externs

• St. John’s University College of Pharmacy and Health Sciences—Pharm.D. Students
PROGRAM OBJECTIVES

EDUCATION
Create a longitudinal interprofessional educational program.

CLINICAL CARE
Improve patient access, quality, and cost of care by implementing a collaborative practice IP team.

MENTORING
Increase the number of trainees entering primary care by providing structured mentoring opportunities.
EDUCATION: “Mini-Didactics”

- Held 30-minutes before clinical sessions.
- Case-based, all professions participate and contribute.

### Illness Management

<table>
<thead>
<tr>
<th>Illnesses</th>
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<tbody>
<tr>
<td>Migraine Headaches</td>
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<tr>
<td>Upper GI Illness</td>
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<tr>
<td>Nephrolithiasis</td>
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<tr>
<td>Diabetes/Oral Agents</td>
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<td>Asthma</td>
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<td>Osteoporosis</td>
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<td>Depression</td>
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<td>Hypertension</td>
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<td>Knee Injury</td>
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<tr>
<td>Chronic Kidney Disease</td>
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<tr>
<td>Rashes</td>
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<tr>
<td>Asthma</td>
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</table>

### Population Management

- Social Determinants
- Veterans Health
- LGBT Health

### Special Issues in Primary Care

- Medication Adherence
- Advance Directives
- Complementary/Alternative Medicine
- Health Literacy
- Trainee Wellness
- Medication Reconciliation Skills
EDUCATION: Interprofessional Retreats

- Half-day workshops with 50–70 learners from all professions
- Five workshops/academic year

<table>
<thead>
<tr>
<th>Topic Areas</th>
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<tr>
<td>IPE &amp; Leadership Skills</td>
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<tr>
<td>Medication Management</td>
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<td>Healthcare Disparities</td>
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<td>Behavioral Health</td>
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<tr>
<td>PCMH Principles</td>
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</table>
CLINICAL CARE: Expanded Clinical Team

- Clinical Pharmacist
  - Pharmacy student
- Physician
  - Medical student
  - Resident
- Physician Assistant
  - PA student
- Patient
- Psychologist
  - Psych extern
- Medical Office Assistant
- Practice Coordinator
Mentoring Program

• Each learner paired with a faculty mentor.
• Structured and semi-structured activities after half-day IP retreats.
• Formal/informal contacts encouraged and monitored throughout academic year.
• Faculty development in mentoring/coaching.
Project Timeline (to date)

- **Fall 2015**
  - Needs assessment
  - Creating stakeholder buy-in

- **Winter 2016**
  - Building the team
  - Recruiting staff and trainees

- **Spring 2016**
  - Faculty development

- **Summer 2016**
  - IMPACcT Launch: Capitalizing on the team

- **Summer 2017**
  - IMPACcT Year 2: Program Refinement, plans for expansion
Evaluation Approach

• Deploy the best available standardized measures.

• Use qualitative comments, semi-structured narratives to support the quantitative data and describe/enrich/“color.”

• Provide the team with frequent and timely analysis for **continuous quality improvement**.
IMPACcT Tenets of CQI

• **Use PDSA**—Five-year program, evolving for the long term.

• **Humanistic Approach**—Respect all stakeholders and their perspective.

• **Apply professional standards**—Role identification, best practices, strive for excellence.

• **Seek Feedback & Manage-by-Fact**—Stakeholders are partners; listen; use *data* to initiate change.
Evaluation Dimensions

• **Process and outcome**
  – Milestones, deadlines - Program effectiveness, quality

• **Longitudinal (pre/post) assessment**
  – Beginning/end of project - Before/after episodes of care
  – For each learner

• **Multiple stakeholders**
  – Learners - Patients
  – Faculty, other staff members

• **Mixed methodologies**
  – *Quantitative*: Surveys/questionnaires, objective patient data
  – *Qualitative*: Focus groups, key informant interviews
Project IMPACcT Evaluation Matrix

**Education/Curriculum**
- **Learners**
  - Focus Group Data
  - Post retreat reflections and ratings
  - Survey of “Mini didactics”
- **Patients**
  - Focus group data
- **Faculty**
  - Focus Group Data
  - Post retreat ratings
  - Annual faculty [semi-structured] survey

**Clinical Care/Training**
- **Learners**
  - Focus Group Data
  - Surveys of learner attitudes, perceived skills:
    - ISVS
    - PCAS
    - ICCAS
- **Patients**
  - Focus group data
  - Volume, attendance, continuity, access, ED visits, Hospitalizations
  - PCMH QI Metrics
  - Patient Insights & Views of Teamwork (PIVOT)
- **Faculty**
  - Focus Group Data
  - Annual faculty [semi-structured] survey

**Workforce Development**
- **Learners**
  - Focus Group Data
- **Patients**
  - Focus group data
- **Faculty**
  - Focus Group Data
  - Career choice survey
  - Perceptions of mentoring experiences.
  - Post training placements
Barriers to Evaluation

- Program is a moving target
- Learners at different points in their training
- Different durations and intensities of training
- Larger practice transformation efforts
Formative Strategies: Focus Groups and Preliminary Survey Data
Stakeholder Focus Groups

• We conducted five, 60-minute focus groups with 42 stakeholders (31 men, 11 women) during the IMPACcT program development phase in March–April of 2016.

**LEARNER GROUP:**
- Seven Internal Medicine Residents
- Two Medical Students
- One Psychology Extern
- Two Pharmacy Students
- One Physician’s Assistant Student

**FACULTY GROUP:**
- Seven Internal Medicine Attending Physicians
- One Social Worker
- One Nurse Practitioner
- One Clinical Pharmacist

**Patient Group**
(conducted in English, n=4)

**Patient Group**
(conducted in Spanish, n=7)

**Patient Advisory Committee**
(conducted in English, n=8)
RESULTS: Common Themes Across Groups

- Cost of Care
- Role of Technology in Healthcare Delivery
- Involving Patients in Medical Education
- Time Constraints
- Scope of Practice
- Team Engagement
- Autonomy, Interdependence, Decision-Making

Patients

Learners

Faculty
Focus Group: Recommendations

- Maintain a document outlining information about team members: names, pictures, roles, etc.
- Incorporate training on available patient resources.
- Include training on cost-related influences on healthcare, (e.g., insurance, value-based healthcare).
- Communicate roles/scope of practice of the care team members to patients (e.g., What are they licensed to do? How do they work together?).
- Create opportunities for faculty and learners to share their passion and inspire others to also get involved with primary care.
Learner Evaluations

- Administered immediately pre- and post-training experience.
- **Interprofessional Socialization and Valuing Scale** (ISVS, King et al., 2010).
- **Primary Care Attitudes Scale** (PCAS, Beverly et al., 2014).
- **Interprofessional Collaborative Competency Attainment Survey** (ICCAS, McDonald et al., 2010).
- Scales to assess level of interest in/intent to work in different settings (e.g., primary care, hospital, community settings).
- Open-ended experiential reflections on the training experience.
Preliminary Data—Attitudes to Collaborative Healthcare Practice (ISVS)

- Comfortable leading a team: Residents 6.2, Non-licensed Students 5.22 (P<.05)
- Can clarify misconceptions about my profession's role: Residents 5.9, Non-licensed Students 4.95 (P<.05)
- Can negotiate openly within an IP team: Residents 6.5, Non-licensed Students 5.78 (P<.05)
- Can accept responsibility delegated to me by a team: Residents 6.3, Non-licensed Students 6
- Can be a fully collaborative member of the team: Residents 6, Non-licensed Students 5.91

Not at all to To a very great extent
Career Plans?

How interested are you in pursuing careers in the following areas?

**Primary/Ambulatory Care**
- Not at All Interested
- On the Fence
- Extremely Interested

**Specialty Area**
- Not at All Interested
- On the Fence
- Extremely Interested

**Hospitalist/Inpatient**
- Not at All Interested
- On the Fence
- Extremely Interested

**Teaching/Academia**
- Not at All Interested
- On the Fence
- Extremely Interested

*Note: M values and p-values indicate statistical significance.*

*Legend:*
- Light blue = Residents
- Dark blue = Unlicensed Students
Prior Experience With Quality Improvement?

% with prior experience

- Residents: 80.00%
- Unlicensed Learners: 8.70%
Take-Home Messages

• Learners come to IMPACcT with positive attitudes about interprofessional education and training.

• Unlicensed learners are less confident about communicating assertively and about assuming a leadership role within the team.

• Unlicensed learners are more interested in primary care careers but less interested in teaching/academia.

• An experience gap also exists re: Quality Improvement.
CQI in Action: Interprofessional Retreats
• Each retreat evaluated by learner and faculty survey and reflective/narrative exercise.
• Leadership team reviews data as subsequent retreat is being planned.
Learner Ratings: Likert Scale Questions

Don’t agree at all

- This retreat helped me learn skills that I can apply in the “real world.”
- This retreat met my own educational needs.
- I think I am better prepared to work with other professionals in the IMPACcT program.
- I KNOW more about the topic

Residents:
- “Real” cases rather than role play
- Advanced skills
- Let us teach!

Residents
Non-licensed Students
# Faculty Perspectives on IP Retreats

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<tr>
<th>Comments</th>
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<tbody>
<tr>
<td><strong>They’re great!</strong></td>
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<tr>
<td>“educational strategies are diverse.”</td>
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<tr>
<td>“a reminder of the passion for primary care that inspired the IMPACcT project.”</td>
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<tr>
<td>“The topics have been quite variable and comprehensive.”</td>
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<tr>
<td>“really interactive and [they] bond the [IP] groups.”</td>
</tr>
<tr>
<td><strong>Too much</strong></td>
</tr>
<tr>
<td>“wish they were shorter”; “a little too long.”</td>
</tr>
<tr>
<td>“Not enough breaks.”</td>
</tr>
<tr>
<td>“trying to do too much.”</td>
</tr>
<tr>
<td><strong>Challenges</strong></td>
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<tr>
<td>“…the multi-level learning needs of early vs. late learners across professions [is] a big challenge.”</td>
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<tr>
<td>Ambitious: “trying to squeeze in [a lot:] mentoring, QI, faculty devpt, etc.”</td>
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<tr>
<td>“making [retreats] interdisciplinary as well as interprofessional (including Family Medicine, Pediatrics).”</td>
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<tr>
<td><strong>Getting Better</strong></td>
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<tr>
<td>“Plan curriculum for publication from the beginning.”</td>
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<tr>
<td>“Design[ing] elements so that different professions could deliver and learners could [moderate] some sections was very smart.”</td>
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<tr>
<td>“With each successive retreat, we were able to learn from the previous one and improve upon it.”</td>
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CQI Process for IP Retreats

Team Leadership & Interprofessional Skills
- Larger space
- More clearly defined roles in role-play
- Junior learners overwhelmed

Team-Based Medication Management
- Role-play too long
- Medical students underinvolved
- Faculty should provide more structure

Communication Strategies To Promote Positive Health Behaviors
- Involve residents as co-faculty
- Less role-play, more discussion

Unconscious Bias in Interprofessional and Patient Interactions
- Experiential discussion works for all learners!
- More intimate size
- Quality still needs to be more relevant to all learners

PCMH Principles
- Quality improvement projects presented by residents in small groups
- Activities are fun and informative
- Best one yet!

Next year: New QI Format
Future Directions

Evaluation
• Cost and quality of care metrics
• Patient satisfaction
• Assessing change in learner attitudes and behavior pre-/post-training
• Follow-up focus groups
• “Deep-dive” in December

Program
• Incorporating other professions (nursing, psychiatry)
• Disseminating to other primary care sites
• Piloting new workflows
• Partnering across primary care disciplines (peds, family medicine)
Leadership Team:

- Joseph Conigliaro, M.D., M.P.H.
- Alice Fornari, Ed.D., RD
- Julie DiGregorio, CCRP
- Daniel Coletti, Ph.D.
- Nancy LaVine, M.D.
- Nissa Mazzola, Pharm.D.
- Johanna Martinez, M.D., M.S.
- Crystal McGeown, PA
- Celia Lu, Pharm.D.
- Lauren Block, M.D., M.P.H.
- Frank Cacace, M.D.
- Jennifer Verbsky, M.D.
- Jason Ehrlich, M.D.
- Lawrence Carter, M.D.
- Ankita Sagar, M.D.
- Christine Chim, Pharm.D.
- Danielle Ezzo, Pharm.D.