GUEST EDITORIAL

My Shark Tank Experience: Inventing Tools for Population Health

Many of you may be familiar with the popular ABC show "Shark Tank." In the show, inventors try to recruit investors to help them bring their new products to market. The "sharks" are the investors, individuals with a track record of success in business and money to invest in promising new goods and services. The inventors come from all walks of life and pitch all sorts of ideas to the sharks, like the "CitiKitty Cat Toilet Training Kit," "I Want to Draw a Cat for You," and "Pork Barrel BBQ Sauce." While the products may sound whimsical, the investors are serious, hard charging individuals who always try to get the best deal whether it is in the inventor's best interest or not. That's why they are called sharks.

I never thought of myself as an inventor - I am a grant funded health services researcher, so the main "product" of my work is peer-reviewed publications aimed at health services researchers and practitioners. All that changed when I met the people who work in Jefferson’s Office of Technology Transfer and Business Development (OTT).

I thought that OTT was concerned with people who invent a new vaccine or a useful assay, but it turns out that their purview includes developing any useful intellectual property created by Jefferson into a product or service with a commercial value. They even have a form where researchers like me can report our creations to the university - the "Report of Toolkit Invention" (ROTI). After meeting with the team at several of their Friday morning Innovation Corner breakfasts, I started registering my work with OTT.

I registered three tools with OTT. The first was an economic model that we developed in order to evaluate the economics of companion diagnostics used to treat non-small cell lung cancer. The second was a statistical method to determine the quality of US hospitals using publicly reported quality data. The third was a tool to determine the value of new therapies from the point of view of a health insurance company, which we call the "Jefferson Evaluating Therapeutics Tool" (JETT). That third tool piqued OTT's interest, and they brought me in for what I thought would be a collegial meeting - a 15 minute slideshow presentation followed by a brief discussion.

What I got instead was an experience in Jefferson's own internal shark tank that I will never forget. Katherine Chou, Executive Director of the Office of Technology Transfer and her team aggressively questioned me about the value of my tool. There are thousands of approved drugs in the US - was I proposing to apply the JETT to every one? Also, I was using publicly available data, so what real value did my tool offer? Finally, insurance companies are incredibly focused on the cost of new drugs, so how would my tool offer a useful new service that insurance companies couldn't get elsewhere. It was an intense form of constructive critique that was quite unlike the collegial, academic atmosphere I am used to experiencing here at Jefferson.

Eventually, we were able to come to an understanding of how the JETT was both innovative and useful. In fact, it turned out to be a perfect fit for Jefferson’s new Innovation pillar. While I cannot share all the details of our strategy moving forward, I can say that we are currently not considering the

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It’s been a very exciting time at JSPH! First, The Jefferson School of Pharmacy and Jefferson School of Population Health announced a new dual degree program-Doctor of Pharmacy (PharmD) /Master of Public Health (MPH). This program recognizes the growing synergy between pharmacy services and public health services. This inter School articulation also reflects the growing interest among professionals to seek graduate credentials in multiple disciplines. Eligible PharmD students are able to apply up to 24 credits for their Pharmacy work toward the 45-credit MPH degree. PharmD students may apply to the MPH program during their fourth year or within three years of graduation and they may complete the MPH program on a full-time or part-time basis.

Next, JSPH and Philadelphia College of Medicine (PCOM) signed an agreement that will offer Doctor of Osteopathic Medicine (DO) students the opportunity to receive an MPH degree from JSPH while completing their coursework at PCOM. Those embarking on the dual degree path can attain both degrees in a little as five years. Through this partnership DO students can attend JSPH full-time for the year between what traditionally would be the third and fourth years of PCOM’s osteopathic medical program. PCOM students will study alongside other dual degree students, including Sidney Kimmel Medical College (SKMC) students who are also pursing their graduate degree in public health.

**REFERENCES**


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**JSPH Announces New Partnerships and Dual Degree Programs**

Top Row Left to Right: Caroline Golab, PhD, and Elena M. Ulmand, PharmD.

Bottom Row Left to Right: David B. Nash, MD, MBA and Rebecca S. Finley, PharmD, MS.

Left to right: Ken Veit, DO, MBA; Caroline Golab, PhD; and Rob Simmons DrPH, MPH, CHES, CPH.

Traditional routes of patent or copyright for my invention. Instead, we will collaborate with other experts here at Jefferson and external thought leaders at insurance companies and other enterprises in order to maximize and realize the value of JETT. I can definitely say that I am looking forward to my next vist to the shark tank. It has also changed how I do research. Now, in addition to thinking “where will this project get published?” I think “what is the intellectual property that I will generate, and does it have a commercial value?” It is a new way of thinking for me, and one that I think will work both with the new Jefferson and the new reality for how science will be funded going forward.
Pharmacists on the Front Lines of Community Health: The Pneumonia Prevention Project

The Pharmacists Pneumonia Prevention Project (PPPP) is an education-based initiative being conducted by the Jefferson School of Pharmacy (JSP) that aims to address a substantial public health concern of older adults in the Philadelphia area. The Centers for Disease Control and Prevention (CDC) recommend that everyone over the age of 65 receive the pneumococcal vaccine, however, research shows that only 49% of this population in Philadelphia do so.\(^1,2\) Pneumococcal infections were responsible for nearly 50,000 deaths in the United States in 2010, with 65.9% of cases occurring in adults 65 and older.\(^3\) Faculty, staff, and students at the JSP have collaborated to create a pharmacist-based intervention in order to address the risks, benefits, myths, and misconceptions associated with pneumonia and the pneumococcal vaccine among older adults.

The program covered details on bacteria associated with pneumonia and its potential to cause other diseases. The implementation of the PPPP will hopefully lead to a greater understanding of the seriousness of community-acquired pneumonia and the importance of immunization.

The community need, coupled with pharmacist vaccination capability, presents a unique opportunity for new models of care to address public health needs related to pneumonia. Pharmacists undergo immunization and CPR training, often in addition to licensure, through their respective State Boards of Pharmacy. Though over 170,000 pharmacists are currently trained to immunize, these healthcare providers may not be utilized to their full potential.\(^4\) Licensed pharmacists in all areas of practice can meet the need to vaccinate for various diseases including pneumonia. Currently, an estimated 77% of pharmacy practice sites allow patients to receive various immunizations with no appointment necessary. Pharmacists have played a dynamic role in increasing public access to vaccinations.\(^5\) Pharmacists are also trained in the prevention, management, and treatment of infectious diseases, making them a great resource to educate and counsel patients regarding pneumonia.

PPPP marks an important collaborative agreement with JSP and Center in the Park (CIP), an accredited senior center located in Germantown, PA. The project began in early 2013 and was initiated by Laura Pizzi, PharmD, MPH, Jason Schafer, PharmD, MPH, (both from JSP), and Lynn Fields-Harris, CIP Executive Director. Constituents from both sites helped to develop and organize the program to create an informative, involved, and interactive experience. Since the conception of PPPP last May, JSP and CIP have held 4 successful events with the plan for more leading through the fall of 2014. At each session, JSP brought faculty pharmacists and students to help facilitate the program and engage participants in discussions pertaining to the disease, their health, and to address any questions they had. The morning started with a questionnaire to assess baseline knowledge and views from the audience about pneumonia and their attitudes regarding receiving vaccinations (particularly from pharmacists). Dr. Schafer delivered a presentation, discussed the relevance of pneumonia, and explained how the audience could best protect themselves by both immunization and traditional public health techniques. They learned the importance of hand washing, avoiding close contact with sick individuals, and regular cleaning of surfaces in preventing the spread of disease. Following the discussion, the Living Well Players, a group of volunteer actors and CIP members involved in the program, performed a skit and song to reiterate key points and relate the seriousness of pneumonia in a manner the audience could relate to (Figure 1).

One of the most well received portions of the PPPP was the roundtable discussions that followed the skit. During these discussions, JSP pharmacists led an open dialogue in break-out groups of 5-7 participants. The small group setting enabled pharmacists to assess eligibility for the pneumococcal vaccine; Those interested and eligible to receive the vaccine were invited to obtain it immediately following the program. Vaccinations were administered free of charge by licensed pharmacists under the supervision of the team’s physician partner, Joseph DeSimone, MD. In some cases, the roundtable discussions also prompted attendees to ask questions unrelated to pneumonia. Specifically, they received counseling on various individual concerns such as side effects of specific antihypertensives, management of insulin regimens, and what to expect from a new

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**Figure 1. Design of the PPPP Educational Program**

- **Presentation**
  - 30-minute talk about pneumonia by Dr. Schafer
  - Addressed facts and myths of the disease
  - Educated the audience on how to protect themselves from it

- **Skit**
  - Conducted by the Living Well Players
  - Spoke to the importance of receiving the vaccine
  - Used examples of notable people affected by pneumonia

- **Roundtable**
  - Pharmacists and students from the Jefferson School of Pharmacy
  - One-on-one conversations about pneumonia and general health
  - Informal feedback and information about receiving the vaccine
Exploring Attitudes toward Physician-Nurse Collaboration within a Team-Based Primary Care Environment

Across the globe, the aging population is increasing and likely increasing the demand for advanced coordinated care for a host of chronic conditions.¹,² Historical approaches toward primary care may not be capable of delivering the scope and scale of services needed for this challenging population. It has been argued that the delivery of primary care must include collaboration and coordination among healthcare professionals in order to achieve the necessary continuity of care for different types of patients.³ Many primary care models, such as the Integrated Care Pilot in the United Kingdom and the Expanded Chronic Care Model in multiple Canadian provinces, have been developed and tested to approximate the required levels of care.⁴,⁵ Despite differences in their specific requirements and workforce composition, these innovative models of care attempt to shift primary care from a reactive, episodic approach to a more proactive, population health type strategy using dedicated methods of coordination. Despite some progress in the implementation of these models, some researchers have expressed cautious optimism regarding the evolution of primary care, citing a lack of physician buy-in towards care integration and collaboration with other professionals within the practice.⁶,⁷

In Italy, primary care is considered the backbone of their national healthcare system and is provided to all citizens by independent general practitioners, who act as gatekeepers to the rest of the healthcare system.⁸ During the last 10 years, the Italian national healthcare system introduced reforms that encouraged general practitioners to organize into collaborative arrangements to create a network designed to better coordinate patient care. The Chronic Care Unit (Moduli) is one such reform where a multidisciplinary team of general practitioners, physician specialists, and nurses delivers care to a population of approximately 10,000 individuals within the local health authorities of the Tuscany region. This team, led by a general practitioner, uses a combination of targeted interventions, patient education materials, disease registries, and integrated information systems to help provide population management services to patients with chronic-care needs.

While the Chronic Care Unit model may be a key component of primary care reform within Italy, it is unclear how well clinical staff members are working together during its implementation, raising questions on how successful the model could be at achieving its objectives. To better understand this issue, we used an adaptation of the Jefferson Scale of Attitudes towards Physician-Nurse Collaboration (JSAPNC) to determine current expectations of shared collaboration between physicians and nurses in the Chronic Care Units.⁹ The JSAPNC was initially developed in 1999 to measure attitudes towards collaboration between nurses and physicians in a hospital setting. The survey contains 15 items answered on a 4-point Likert-type scale addressing the following

REFERENCES

physician–nurse domains: interactions, decision-making, role expectations, authority, and responsibilities for patient care and monitoring. The survey was translated into Italian and certain questions were modified to reflect the outpatient nature of the Chronic Care Units. An online version of JSAPNC was then sent to 218 general practitioners and 46 nurses working in 23 Chronic Care Units across two local health authorities of Tuscany: Prato and Florence. A total of 94 general practitioners and 39 nurses completed the questionnaire with additional demographic information for an overall response rate of 50.4%.

The Total Score for the JSAPNC survey can range from 15 to 60, with higher scores reflecting a more positive orientation towards nurse and physician collaboration at the practice.10 A preliminary analysis showed that nurses scored significantly higher than physicians on the JSAPNC (mean of 52.5 ± 4.0 vs. mean of 44.0 ± 7.2, respectively), suggesting a significant disagreement on roles and responsibilities within the practice. For example, nurses scored significantly higher than physicians when asked whether “a nurse should be viewed as a collaborator and colleague with a physician rather than his/her assistant” suggesting disagreement in role expectations (mean score of 3.7 and 3.2, respectively, p<0.01).

The results from our survey remain consistent with previous studies that attributed this physician–nurse relationship to a hierarchical model that is prevalent in Italy, where many physicians still view nurses as assistants rather than partners in patient care.10 The differences found in expectations of physician–nurse collaboration suggest that a significant barrier to the successful implementation of the Chronic Care Unit model may rest on the level of perceived collaboration between key professionals of the practice,10 and therefore practice culture is an area within the Chronic Care Unit where improvement is needed. In order to ensure long-term viability of the Chronic Care Unit, we argue that future efforts by Tuscany health authorities should be allocated to both measuring and understanding the critical factors within the physician–nurse relationship. In addition, we believe that data from this research are informative for any institution where population health, team-based primary care approaches, such as the patient-centered medical home in the U.S., are being implemented. The results of our research corroborate international evidence that suggest nurses have a more positive attitude toward clinical staff collaboration than physicians.10 Although inter-professional education and training are becoming more common components of medical and nursing school curricula in the U.S. and in Europe, continued efforts at the workplace are also needed to gain sustained traction.11 The progress and sustainability of these primary care models may rest in part on how successful we are in both exploring and improving the collaborative relationships between professionals within each model of care.

Kraragiannis T,1 Coschignano C,2 Hegarty SE,3,4 Polenzani L,2 Messina E,3 Zoli R,5 Hojat M,5 Maio V.1

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For more information on this project contact Vittorio Maio, PharmD, MSPH at Vittorio.Maio@jefferson.edu.
Improving Hospital Performance through Lean Thinking: Utilizing a comprehensive didactic and project-based course to drive operational excellence

Since 2009, the Jefferson School of Population Health (JSPH) has offered Lean Thinking courses geared towards clinicians and administrators. The program is divided into a didactic Lean Thinking course and Lean Project. The undergraduate and graduate course offerings provide an in-depth exploration of Lean Thinking principles combined with project work within the Jefferson enterprise. Depending on the semester, the didactic Lean Thinking course is offered online or on Jefferson’s campus. The Lean project is completed in teams locally at Jefferson or virtually depending on student geography. Completion of both courses leads to Lean practitioner certification - an externally credible affirmation of knowledge and practical application of Lean Thinking. Over 50 individuals, ranging from physicians, pharmacists, nurses, administrators, have completed the Lean practitioner certification and more than 85 individuals have taken the didactic course.

Derived from Toyota,1 Lean is a management philosophy that covers both professional and personal interactions. Its primary aim is to eliminate waste – to identify and revise or eliminate those activities that do not add value to the process. The table below provides a high-level overview of what Lean Thinking means (Table 1).

The course presents Lean Thinking as a key process improvement framework in healthcare settings that require management of multidisciplinary teams. Students identify and apply various tools to appropriate problems by designing and implementing Lean improvement strategies.

Using the Jefferson enterprise as an incubator for learning, students are grouped into Lean teams and are assigned projects that have been identified and prioritized by clinical and operational leaders. The projects run the duration of the 14-week semester. The goal for teams is to implement an improvement or develop an actionable recommendation to be initiated within 30 days. Teams have addressed issues in many areas including:

- Radiation Oncology Patient Flow
- Nurse to Nurse Handoff Communication
- Medical Oncology Patient Medical Records
- Operating Room Patient Flow
- Rapid Response Standardization
- Gastroenterology Outpatient Office Patient and Work Flow

One of the Lean teams chose to tackle a pharmacy process known as small volume parenteral (SVP) preparation. SVPs are solutions used to deliver medications, packaged in small amounts. The project was a stepping stone for a larger pharmacy department effort focused on collapsing decentralized pharmacies and distribution locations. The department’s goal is to streamline processes, reduce waste, and enhance service delivery to ordering providers. Key to this end is the standardization and refinement of core functions (e.g., inventory management, medication distribution). The SVP process served as an integral enabling project that would demonstrate the effectiveness of Lean Thinking and staff engagement.

Prior to project initiation, the SVP process was batched once per day filling the orders for patients 24 hours in advance. This batching process led to overproduction and wasted supplies. For example, if a patient’s status changes after the batch process was complete, the medication fulfilled may no longer be appropriate and is therefore discarded.

After interviewing staff, providers, and other key stakeholders, conducting observations, and performing data analysis, the team identified an opportunity to redesign the process to a three-times daily production. In order to accomplish this, the team worked alongside pharmacy technicians, pharmacists and administration to streamline and reorganize the work area, develop a workflow checklist, and implement a shift communication and batching log.

Table 1. Lean Thinking Overview

<table>
<thead>
<tr>
<th>Typical Problems to Address</th>
<th>Process Inefficiencies, Space/Layout Issues, Poor Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>Reduce/Eliminate Waste</td>
</tr>
<tr>
<td>Examples of Metrics</td>
<td>Throughput time, Turn-around time, Productivity</td>
</tr>
<tr>
<td>Approach to Implementing Improvements</td>
<td>Plan, Do, Check, Act (PDCA) - emphasis on piloting solutions, evaluating their impact, then refine and re-deploy.</td>
</tr>
<tr>
<td>Examples of Questions to Ask when Assessing an Area</td>
<td>Is this task/step adding value to the process? Are tasks/steps performed correctly the first time? If not, why?</td>
</tr>
<tr>
<td>One Line Description</td>
<td>Maximize customer value by Identifying and eliminating waste.</td>
</tr>
</tbody>
</table>
The results of this effort led to decreased ordering for the decentralized pharmacies and increased ordering through SVP (which was the first step towards centralization). The process redesign also resulted in reduced rework, fewer missed doses, and less manual labor effort. Annual cost savings of over $140,000 have been realized based on 4 of the top 5 high-cost drugs being monitored.

Lean Thinking promotes a logical approach to process evaluation and improvement. Most changes are intuitive and straightforward. The impact however, can be significant. The JSPH Lean Thinking course serves as a foundation for operational excellence and is a building block for future course offerings aimed at healthcare professionals striving to develop practical expertise. Jefferson Hospitals and University have benefited greatly as a partner in this innovative learning model.

Some quotes from students:

“This was a very practical course with obvious real-world opportunities for applying what we learned. As a Jeffersonian, I can participate in the Lean culture developing at our institution and understand the purpose and help move it forward. The instructor was very engaged and clearly inspired my classmates and his passion for Lean seemed contagious.”

“Overall the class was very useful and at the same time, it was fun. It helped me think outside of the box many times, including in my professional care”

“Excellent course. Excellent balance of lecture, class activities/simulations and discussion. Everyone at Jefferson needs to take this class!”

“Great course; very useful information. Should be required for all managers and directors and hospital VPs”

“Great course. We need to get many more TJUH employees to take this course and change culture!”

**REFERENCES**


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Introducing a New Graduate Certificate Program in Patient Centered Research

This fall, Thomas Jefferson University will introduce a new graduate certificate program in Patient Centered Research. A collaborative effort between the Jefferson Graduate School of Biomedical Sciences (JGSBS) and the Jefferson School of Population Health (JSPH), this 18-credit program is designed to train students in the principles and methods of patient-centered outcomes research (PCOR) and comparative effectiveness research (CER).

What are PCOR and CER?

PCOR assesses the benefits and harms of preventive, diagnostic, therapeutic, palliative, or health delivery system interventions to inform decision making, highlighting comparisons and outcomes that matter to people. PCOR is inclusive of an individual’s preferences, autonomy and needs, focusing on outcomes that people notice and care about such as survival, function, symptoms, and health related quality of life.

CER generates and synthesizes evidence that compares the benefits and harms of alternative methods to prevent, diagnose, treat, and monitor a clinical condition or to improve the delivery of care. CER may be a systematic research review evaluating existing clinical trials, clinical studies, and other research. It may also be research that compares one method to another. The purpose of CER is to assist consumers, clinicians, purchasers, and policy makers to make informed decisions that will improve health care at both the individual and population levels. In order to carry out studies that improve patient health outcomes and reduce health disparities, investigators will need to understand patient-centered and comparative effectiveness research methodologies. Patient centered outcomes and comparative effectiveness research (PCOR-CER) play critical roles in defining the paths to achieve these goals. Increasingly, federal funding organizations that focus on clinical, behavioral, and translational topic areas are requiring a patient-centered focus on research design and analysis. Three such organizations are the National Cancer Institute (NCI), Agency for Healthcare Research and Quality (AHRQ) and Patient Centered Outcomes Research Institute (PCORI).

Who should consider enrolling in the Certificate program?

Persons with an undergraduate degree who want to expand their knowledge base and career opportunities in patient-centered research should consider enrolling. Students may come from clinical or scientific backgrounds. It is anticipated that most students will already have an advanced degree, often in a healthcare discipline, and will include faculty, medical fellows and residents, and employees engaged in basic, clinical, and translational research. The Certificate program will be available to employees at Jefferson and other health care organizations in Philadelphia, and those in regional health systems who are interested in PCOR-CER.

What is the Certificate curriculum?

The 18 credit (7 course) Certificate consists of a core curriculum (15 credits) and an elective course (3 credits) that will give students expertise in a specific aspect of PCOR-CER. The core curriculum courses will provide the necessary background in statistics and epidemiology to build an understanding of PCOR-CER, and will also cover the basics of health services research, an introduction to comparative effectiveness research and patient-centered research, and an introduction to the field of decision support and shared decision making. Early in their coursework, students will be encouraged to enroll in the integrative seminar, which will introduce the literature of patient-centered outcomes research with in-class discussions of case studies and journal articles. The core curriculum will be a springboard to further investigations of multiple types and areas of PCOR and patient centered CER. Several courses already exist in the JGSBS and Jefferson School of Population Health (JSPH) that will satisfy some certificate requirements, and four new courses are being developed.

The certificate is designed to be completed on a part-time basis and does not require a research thesis. Courses meet once per week in late afternoon or early evening. Most students will take one course per semester, and new students can start in any of the four terms. The six colleges and schools at Jefferson have an existing agreement to accept students from each other, assuming pre-requisites have been met. Thus, certificate courses could be taken in JGSBS or JSPH. This arrangement allows greater flexibility for complex schedules and diverse interests. In addition, some or all of the credits taken for the Certificate may be transferred into a Master’s degree program, should the trainee wish to receive that level of training.
Is tuition covered by the Tuition Benefit?

Since most of the initial trainees will either be employees of the University or the Hospital, they will be eligible to use their Jefferson employee Tuition Benefit to cover the majority of the cost of the courses. The benefit covers 90% of the tuition cost up to $7500 per fiscal year, with the employee therefore responsible for at least 10% of the tuition cost. Also, university and hospital employees are not required to pay the technology and library fees assessed of other students.

Can I take just one or two of the courses?

Yes. Most of the courses can be taken without pre-requisites. Individual courses can be taken as a non-degree student.

Are any of the courses offered online?

Yes. Currently AHE 509, AHE 506 and HQS 503 are offered online.

Who should I contact if I am interested?

For any questions, please email Carol Beck, PhD, Assistant Dean, Jefferson Graduate School of Biomedical Sciences at carol.beck@jefferson.edu.

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Graduate Certificate in Patient Centered Research (PCR): Core Courses and Electives

**Core Courses (15 credits Required):**

- GC 660 Statistical Methods of Data Analysis (JGSBS) or PBH 504 Basic Public Health Statistics (JSPH) 3 credits
- MI 580 Principles of Epidemiology (JGSBS) or AHE 509 Epidemiology for Outcomes Research (JSPH) 3 credits
- AHE 506 Subjective Outcomes in Healthcare Evaluation (JSPH) 3 credits
- *Decision Support and Shared Decision Making in Health Care (JGSBS) 2 credits
- *Comparative Effectiveness & Patient-Centered Outcomes Research (JGSBS) 3 credits
- *Integrative Seminar in Patient-Centered Research (JGSBS) 1 credits

**Elective Courses (3 credits Required, students choose one):**

- HQS 503 Healthcare Quality & Safety; Measurement and Outcomes Analysis (JSPH) 3 credits
- *Analysis of Large Databases (JGSBS) 3 credits
- PBH 515 Cultural Humility and Competence (JSPH) 3 credits

**TOTAL (Required and Electives) 18 credits**

*New courses created for the PCR Certificate*

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Reflections: Including Patients in a Healthcare Culture of Safety and Transparency

Sometimes, especially during the hectic and overwhelming days of medical school, it is important to remember why I am pursuing becoming a doctor. My experience at the Telluride East Patient Safety Summer Camp gave me the chance to step back and fully appreciate the myriad interactions that influence a physician’s daily life. This retreat was an interactive learning experience related to health care quality and delivery. Students accepted to the program were given full scholarships to attend. An array of medical students, nurses, and residents attended the camp, which allowed for a great breadth of experiences and knowledge to be shared. The camp was filled with workshops, interactive discussions, small group sessions, and team building activities. The experience allowed me to work with renowned experts in the field.
As a future physician, I aspire to be someone who truly listens to those around me, while simultaneously recognizing my own limits and seeking out help when needed. Without recognizing one’s own limits and without making an effort to engage patients, it is far too easy to make decisions that could actually negatively impact a patient’s outcome. Focusing solely on inter-professional teamwork and communication, although crucial, is ineffective if patient engagement is not incorporated.

One method to ensure that healthcare systems are engaging in patient-centered care is to evaluate the level of transparency in all aspects of care. While mistakes and errors are inevitable, they are also incredibly strong teachable moments that should be utilized. Only through transparency can an organization truly embrace a culture of patient safety. I believe that transparency demonstrates a true willingness and desire to learn from mistakes. The real consideration is, does transparency lead to cultural change, or does a complete patient-safety mentality shift need to happen first in order to improve transparency?

When I left the retreat this past July, I felt reenergized and inspired to tackle the aspects of patient care that need improvement. The Telluride camp was a great reminder that my continued pursuit of a medical degree was in order to provide my future patients with the highest quality of care.

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Jefferson Students “Bridge the Gaps” This Summer in Philadelphia

This summer, two Jefferson School of Population Health Master of Public Health (MPH) students, Elizabeth de Armas and Jeffrey E. Hicks, had the opportunity to take part in Bridging the Gaps (BTG), a 7-week interdisciplinary federal work study program that allows students training in various health and social services fields to collaborate and work with vulnerable populations in underserved areas. Since 1991, BTG student interns representing Philadelphia’s health science universities and programs at Drexel University, Philadelphia College of Osteopathic Medicine, Temple University, Thomas Jefferson University, University of Pennsylvania, University of the Sciences, Bryn Mawr College and LaSalle University have been paired up with non-profit community organizations located across the Philadelphia region.

Students come to BTG from various academic disciplines including medicine, nursing, dentistry, public health, social work, occupational therapy, physical therapy, pharmacy, law, and physician assistant. During the 7-week program, students worked on health-related projects located at their respective sites 4 days of the week. On Wednesdays, the student interns (roughly 200 in total) met at one of the various Philadelphia universities to discuss the progress being made by the students at their community work sites and to learn from experts in the field who routinely work with underserved populations. Each year, as part of the BTG’s curriculum, a book is chosen which highlights a particular health concern that student interns will encounter during their summer experience. This year we read David Sheff’s book, Beautiful Boy, which discusses the heartache felt by David’s family in dealing with his son Nic’s addiction to methamphetamine. The program concludes with a symposium held in September that showcases all of the student interns’ summer projects.

ELIZABETH’S EXPERIENCE

As part of my BTG experience, I worked at the Philadelphia Senior Center Main Branch. The Services on Site program of the Philadelphia Senior Center’s Independence Promotion Project provides social service support to seniors living in geriatric residential facilities. The community sites include Anthony Wayne Senior Housing, Scottish Rite Tower, Scottish Rite House and 801 Locust Senior Housing, Philadelphia Senior Center (PSC) Main Branch, located in Center City, provides recreation, group meals, health and wellness education, and other supportive services each year for more than 5,000 adults aged 55 and older. The Center offers a variety of activities including art classes, poetry workshops, line dancing, tai chi, drama, walking clubs, a chorus and health support groups. Throughout the 7-week program, I worked on several health and wellness projects at PSC and at its affiliated independent senior residential facilities. At the residential facilities, the student intern team – comprised of a public health, medical, and
social work student – collaborated with the Social Services Coordinator to provide weekly presentations and take-home handouts covering a wide array of topics such as mental health, memory, sleep, depression, heat safety, nutrition, heart health and oral health. At PSC, we also organized and oversaw the distribution of food vouchers for the Pennsylvania Farmers Market Nutrition Program. Additionally, we organized and distributed 200 fans for the annual fan fair, which provided box fans to seniors. As a public health student, I was initially interested in the Bridging the Gaps summer internship program because I wanted an opportunity to work with a community organization that assists vulnerable populations. I figured that having an internship in the field of community health would be a great way for me to get some exposure to a certain aspect of my field. When I was assigned to the elderly population, I was both excited and nervous. I wanted to see how “in tune” they were with their health, what they did on a daily basis, the struggles they faced, the struggles they overcame, and their social dynamic. I realized during my time at the senior center that many of the elder adults come to the center because they are lonely or need something to do. Sometimes just smiling at them and taking five minutes to ask how they were doing would make their day. Little things, more often than not, mean the most. This experience has allowed me to realize how important it is to care for the aging population and ensure they are helped and assisted with the daily struggles they face. Many of the seniors at PSC were very open to sharing parts of their life and it allowed me to understand them on a deeper level. It is nice to know that many of our elder adult population continue to have a good overall quality of life and well-being. At the same time, it is frightening to know that so many of them continuously fall through the cracks and don’t receive the care they truly need. These are the experiences that I will remember throughout my career and the experiences that have made me want to do more for this population.

JEFF’S EXPERIENCE

As part of my BTG experience, I worked at Mercy Neighborhood Ministries of Philadelphia, Inc., located in the Nicetown-Tioga section of northern Philadelphia. Mercy is a faith-based community center that “creates partnerships and services with those who are poor in the North Philadelphia community.” Since January 2009, Mercy has provided services such as childcare (before and after school programs, summer camp, etc.) to children from Pre-K through 12th grade. Mercy is licensed to serve about 110 school-aged children. Additionally, they provide an adult daycare program for adults who are unable to perform daily self-care activities independently, and for those who desire companionship. The center is licensed to serve up to 57 seniors. On Mondays, my student partner and I worked at Mercy’s summer day camp. My experience with the children included teaching health lessons on topics such as oral health, cardiovascular health, and nutrition. I also assisted Mercy’s classroom teachers with supervising summer camp activities. On Tuesdays, Thursdays, and Fridays, my student partner and I worked at Mercy’s adult daycare program. My experience with the adults included teaching health lessons focused on cardiovascular health, medications, and diabetes; assisting with breakfast, lunch, and snack; engaging in daily exercise activities; discussing current events; participating in arts and craft projects; and socializing with the seniors to gain an insight into their personal stories.

It was an enriching opportunity to work with both the young and the aged in an underserved section of Philadelphia. My time at Mercy gave me the ability to apply public health lessons that I have learned at Thomas Jefferson University and present them in a real-world community setting. The best part of the 7-week BTG program was that not only did the children and seniors at Mercy learn about healthcare from me, but I learned a lot about them, too. From day one, Mercy welcomed me and my BTG partner into their facility and made us feel like we were long-time family members. I will always cherish my BTG experience and fondly remember the memories made at Mercy.

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Improving Health Literacy in Girona, Spain

Health literacy has been defined as “the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.” In the United States, low health literacy leads to lower health knowledge, less healthy behaviors, under-utilization of preventive services, poorer health outcomes, and greater healthcare costs. According to a 2012 report from the U.S. Department of Health and Human Services, 90 million adults in the U.S. are unable to understand or act on health information they receive. The literacy problem is not limited to the U.S. Among the top 23 high income countries, Spain ranked 22nd (the U.S. ranked 16th) in literacy and numeracy (ability to understand and use numbers).

This past summer, I had the opportunity to travel to Spain as a Fulbright Specialist Fellow to work with the University of Girona (north of Barcelona) on a health literacy initiative. The primary focus of the Fellowship was to train university faculty and local health professionals to develop and implement health literacy initiatives. I developed and facilitated a 3-day summer institute on health literacy that was attended by 15 participants from diverse backgrounds and organizations. Institute topics included: defining and measuring health literacy; creating shame-free health literacy environments; developing patient friendly education materials; creating health literacy policies and programs; enhancing patient-provider communication (including “Teach Back”); optimizing organizational websites for low literacy populations; and “way-finding” around health facilities. At the patient or consumer level, we discussed strategies to increase consumer engagement and prepare for a healthcare visit through the use of the “Ask Me 3” program (“What is my main problem?”, “What do I need to do?”, “Why is it important for me to do it?”). We held several meetings with faculty regarding how to incorporate health literacy
education and skills into their undergraduate and graduate programs, and to help them develop potential research initiatives in health promotion (housed within the University’s School of Nursing). We also met with local hospital representatives to discuss strategies to enhance their health literacy initiatives with patients and providers, and held meetings with the local public health promotion program (Dipsalut) in an effort to enhance their current health promotion initiatives, including health literacy. I also collaborated with the Health Promotion Program’s electronic newsletter, Bepsalut, and wrote a short article in Spanish on health literacy that was translated into the regional language, Catalan.

The institute was based on the five-year health literacy initiative, SEPA READS, funded by the Pennsylvania Department of Health\(^6\) and coordinated by the Health Care Improvement Foundation; Department of Family and Community Medicine, Thomas Jefferson University and Hospital; and Jefferson School of Population Health. The Institute evaluation was overwhelmingly positive and the University of Girona, Health Promotion Program is hoping to collaborate with Jefferson on future health promotion initiatives. Overall, it was a very productive and most enjoyable experience.

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### REFERENCES


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### The Jefferson Digital Commons and the Jefferson School of Population Health: A great partnership

The Jefferson Digital Commons (JDC) is the institutional repository for Thomas Jefferson University and Hospital. This free digital archive stores knowledge-based resources produced by Thomas Jefferson authors including Jefferson-sponsored journals, and historical materials from the University Archives and Special Collections. Since 2005, the JDC has had over 2 million full-text downloads and is approaching over 10,000 deposited assets. The goal of the Commons is to enhance the visibility of Thomas Jefferson University scholarship, and to promote university authors on a global scale. All materials deposited in the JDC are open access and indexed by major search engines. In addition, readers can sign up for emails alerts to track newly published works; look for a link that reads: Receive custom email notices or RSS.

From the beginning, the Jefferson School of Population Health (JSPH) has been an active partner and supporter of the Jefferson Digital Commons. The Jefferson School of Population Health uses the Jefferson Digital Commons to archive many of the knowledge-based resources produced by the School. Over the years, the JDC has archived the following:

- The JSPH Population Health Forum monthly series
- Population Health Matters newsletter from 1994 to the present
- Prescriptions for Excellence in Healthcare newsletter

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Dr. Simmons with participants in the Health Literacy Institute at the University of Girona, Spain.
Visitors from all over the world visit JSPH content archived in the JDC. Here is a list of countries that have accessed assets from the Population Health Matters newsletter in order of most downloads:

1. United Kingdom
2. Canada
3. India
4. Malaysia
5. Philippines
6. Italy
7. Hong Kong
8. Denmark
9. France
10. Netherlands
11. Saudi Arabia
12. Poland
13. Brazil
14. South Korea

Top 5 most downloaded assets from JSPH in the JDC:

1. **Wii-HAB: Using the Wii Video Game System as an Occupational Therapy Intervention with Patients in the Hospital Setting**
   - 4,215 downloads
2. **Prevalence and Risk of Polypharmacy among the Elderly in an Outpatient Setting: A Retrospective Cohort Study in the Emilia-Romagna Region, Italy**
   - 2,578 downloads
3. **Medication Safety: Who’s Accountable?**
   - 2,447 downloads
4. **Activating Patient Involvement**
   - 2,433 downloads
5. **Spirituality and Patient Care**
   - 2,228 downloads

Top 5 JSPH presentations on campus:

1. **The 16th Annual Dr. Raymond C. Grandon Lecture: Patient Safety: The Impact of Facility Design**
   - 396 downloads
2. **The 20th Annual Dr. Raymond C. Grandon Lecture: A Roadmap to Creating a Real Health Care System**
   - 235 downloads
3. **19th Annual Dr. Raymond C. Grandon Lecture- Health as an Economic Strategy**
   - 227 downloads

Top 5 JSPH conferences and symposia:

1. **Research on Healthcare Worker Personal Protective Equipment: Minimum Requirements for Isolation Gowns (Building the Chain of Safety: Stakeholders Summit)**
   - 1,202 downloads
2. **Progress in Controlling Healthcare Associated Infections: A Historical Perspective (Building the Chain of Safety: Stakeholders Summit)**
   - 210 downloads
3. **The Need for Transformational Change in the Education of Health Care Professionals (Creating the Healthcare Workforce for the 21st Century)**
   - 204 downloads
4. **Cultivating Collaborative and Coordinated Care (Creating the Healthcare Workforce for the 21st Century)**
   - 169 downloads
   - 160 downloads

Most popular monthly Forum presentations:

1. **Building Patient Centered Medical Homes in America’s Poorest City**
   - 388 downloads
2. **The Impact of Serious Medication Errors for Health Care Providers**
   - 371 downloads

Sample view of download map for entire JDC after 48 hours.
Jefferson School of Population Health invites you to join the Grandon Society, a membership organization for individuals and organizations focused on advancing population health.

The Grandon Society is designed for leaders throughout the healthcare sector who are dedicated to transforming the US health care system through collaboration, education and innovation. Benefits of membership include exclusive member-only programs and events, a member e-newsletter, and early notice and special registration rates for JSPH conferences and events. Memberships are available for individuals and for organizations, with special rates for academic, non-profit and government institutions.

Become a member today and join us for our Grandon Society workshop on April 8, 2015 from 9:45 am – 11:45 am, immediately following the Population Health Forum. This interactive session will feature A. Mark Fendrick, MD, Professor of Internal Medicine, in the School of Medicine and Professor of Health Management and Policy at the University of Michigan. Dr. Fendrick is also Director the Center for Value-Based Insurance Design systems.

For more information visit: Jefferson.edu/GrandonSociety

Contact Alexis Skoufalos at 215-955-2822 or alexis.skoufalos@jefferson.edu
UPCOMING JSPH FORUMS - FALL 2014

November 12, 2014
The Future of Population Based-Reimbursement

David Chin, MD, MBA
Distinguished Scholar, Director of Executive Education
Senior Advisor to the Center for Population Health IT
Johns Hopkins Bloomberg School of Public Health
Bluemle Life Sciences Building
233 South 10th Street
Room 105

December 10, 2014
Transforming Healthcare in PA: Preparing for the Future

Michael J. Consuelos, MD, MBA, FAAP
Senior Vice President
The Hospital & Healthsystem Association of Pennsylvania (HAP)
Bluemle Life Sciences Building
233 South 10th Street
Room 105

All Forums take place from 8:30 am – 9:30 am. For more information call: 215-955-6969.

JSPH PUBLICATIONS


Simmons R. Improving health literacy in our healthcare system. September 2014. bepSALUT Newsletter (Spanish, translated into Catalan). University of Girona.

JSPH PRESENTATIONS

Alcusky M, Kogut S, Paine D, Curran D. Effect of hospitalization on persistence with chronic medications in patients with Diabetes Mellitus. Poster presented at: Academy of Managed Care Pharmacy Nexus Connecting Healthcare and Innovation; October 6-10, 2014; Boston, MA.

Keith SW, Karagiannis T, Maio V, Louis DZ, Rabinowitz C, Liu M. Comparing immortal time biases in pharmacoepidemiologic survival analyses of antihypertensives after pancreatic cancer versus antidiabetics after head and neck cancer. Presented at: Joint Statistical Meetings; August 2014; Boston, MA.

Simmons R. Health literacy: system changes to improve health outcomes. Presented at: University of Girona, training institute (conducted in Spanish); July 16-18, 2014; Girona, Spain.