

Systems-level Improvements at a Student-Run Free Gynecology Clinic

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INTRODUCTION

Student-run free clinics (SRFCs) function as a unique opportunity to enhance medical education by providing a venue to learn principles of system-based practices outside of traditional medical systems while importantly answering the otherwise unmet needs of countless uninsured patients.^{1,2} Student volunteers play a lead role in the functioning and staffing of these clinics; however, they typically do not have time to dedicate to volunteering after the pre-clinical years (years 1 and 2). Due to the frequent turnover of volunteers, it can be difficult to establish continuity of care and improve patient outcomes through a quality improvement lens.

However, working to elevate the quality of care delivered to the marginalized communities, historically shut out of more traditional healthcare facilities, is of the utmost importance. Patients do express high levels of satisfaction with the care they receive at SRFCs³ and studies have shown similar or even better provision of preventive services compared to national rates and standards², including favorable longitudinal patient outcomes, particularly for diabetes and hypertension.^{4,5}

Many SRFCs are developing specialized sub-clinics to deliver specialty care within the same model, such as Clinica Esperanza's "Women's Clinic," which was established in 2015 and provides gynecologic care, including pap smears, breast exams and mammogram referrals, among other services. As the sub-clinic draws from an even more limited group of volunteers and due to its relatively new nature, the system-level functioning of this clinic remains tenuous without clear policies and procedures for care delivery and patient follow-up.

We aim to outline the examination of certain quality measures at Clinica Esperanza's Women's Clinic to detail quality-improvement processes that student leaders were able to undertake and the subsequent solutions to create more comprehensive and sustainable gynecologic services within a SRFC to better serve the uninsured population of Rhode Island. We also seek to relay the valuable learning experience that occurs when medical students engage in system-level quality improvement and how the SRFC setting can be an optimal place for this experience.

THE SETTING FOR HANDS-ON QUALITY IMPROVEMENT AT AN SRFC

Two Women's Clinic's student leaders (MBT and JR) are enrolled in the Alpert Medical School of Brown University's Primary Care-Population Medicine dual MD-ScM program, which includes a Population and Clinical Medicine course as part of the third-year curriculum. This graduate-level course involves teaching on population medicine, community engagement, and quality improvement, and incorporates designated time to work on a self-directed community partnership project longitudinally throughout the year. Students were expected to spend at least ten hours a month on their partnerships and were given protected time within their schedules to work on their projects.

By offering students this time and support to focus on community needs and broader system-level processes in healthcare, the Population and Clinical course allowed the student leaders to assess current practices and procedures within the Women's Clinic that may negatively impact care delivery. A deliberate problem analysis revealed areas of improvement existed within waitlist maintenance, follow-up management, and external referral tracking.

MANAGING THE WOMEN'S CLINIC WAITLIST

Problem

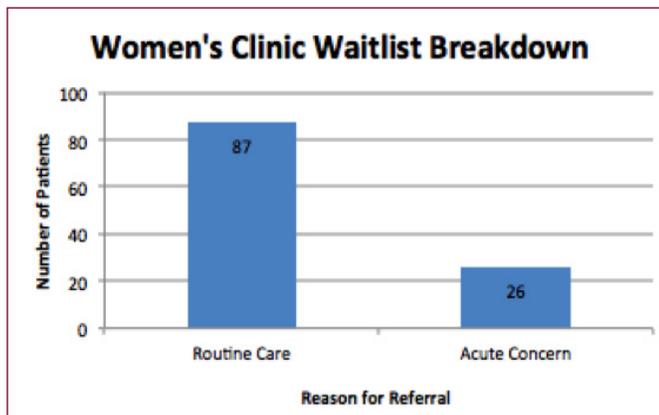
Upon implementation of this project, the waitlist for Women's Clinic exceeded 100 patients, many of whom had been listed for over one year. Moreover, there was no established protocol for students and clinic staff to identify and address acute concerns or manage new patient referrals in a timely, thoughtful manner. The student leaders carefully reviewed the waitlist and categorized chief complaint (**Figure 1**) and acuity level (**Figure 2**) and assessed if individuals still required care.

Solutions

Building off this close examination of waitlist composition, student leaders created a system to appropriately triage waitlist patients. The steps are outlined as follows: the students reviewed the clinic's EHR to determine the initial stated reason for the referral and then determined whether the patient had already been seen at the clinic or had the problem addressed elsewhere within Clinica Esperanza. If the patient

Figure 1. Breakdown of waitlist by chief concern

Chief Concern	Number of Patients n=113
Pap smear only	75
Pap smear + mammogram	12
Contraception	8
Infertility	5
Abnormal Uterine Bleeding	4
Pelvic Pain/Other	4

Figure 2. Distribution of waitlist by acuity of concern

had not been seen, the students then referenced the regional hospital's EHR to determine whether the patient had been seen for the referred problem at another site. Patients whose problems had been addressed elsewhere were then removed from the waitlist. Those who were determined to not have had their problem addressed remained on the waitlist.

To further triage the waitlist, they also developed scheduling protocols based on acuity of active concerns and partnered with Clinica Esperanza's nursing clinical manager to add general clinic sessions for Pap smears and other routine gynecologic care.

These steps have allowed for nearly a 50% decrease in waitlist volume.

ESTABLISHING FOLLOW-UP PROTOCOLS

Problem

Previously, there had been no system to track provision of women's health maintenance visits, including routine cervical cancer screening, nor was there a way for Women's Clinic to manage follow-up visits for abnormal tests that required close surveillance or colposcopy, in accordance with recent American Society for Colposcopy and Cervical Pathology guidelines.

Solutions

Now, a designated clinical volunteer student securely documents all lab work and procedures performed during clinic

and monitors outstanding/pending results regularly. With this system, both urgent and routine follow-up requirements are updated in the EHR and organized by date so that patients can be scheduled for upcoming clinics accordingly. This new process ensures that, moving forward, women are scheduled for appropriate HPV and cervical cancer follow-up screenings.

CREATION OF REFERRAL SYSTEMS

Problem

After further assessment of gaps in care continuity and delivery, the student leaders found that patients were often referred to outside Ob/Gyn specialty clinics without any subsequent follow-up. Many women were referred and never had appointments scheduled. For those who were seen, there was a lack of communication between the two clinics, making it unclear who was responsible for the patients' care after the reason for initial referral was resolved.

Solutions

Student leaders cultivated more cohesive relationships between Women's Clinic and the surrounding Ob/Gyn specialty clinics. Through this partnership-building, they secured restricted access for the nursing clinical manager to the EHR used by these specialty Ob/Gyn clinics, which allowed for better monitoring of referrals to ensure patients were scheduled for appropriate appointments. With this enhanced bidirectional communication, the student leaders facilitated the incorporation of tracking external subspecialty referrals into the internal monitoring system within the Women's Clinic EHR.

Moreover, any patient referred to Women's Clinic with a chief concern that requires outside subspecialty care, such as infertility, is now able to have this external referral streamlined so as to avoid delays in work-up. This process has greatly optimized patient care by ensuring closed-loop communication and expanding access to subspecialty care that is not traditionally provided in the setting of a student-run clinic.

SUB-SPECIALTY SRFC QUALITY IMPROVEMENT TAKEAWAYS

By utilizing this recently developed comprehensive and user-friendly system, Women's Clinic will be better poised to serve the community of Rhode Island. Oftentimes newly established SRFCs focus on start-up funding, initial roll-out protocols, and garnering momentum and support. Our examination of a sub-specialty SRFC in its sixth year of running describes the three key areas requiring attention and improvement. In creating these protocols for waitlist, follow-up, and referral management, now these clearly laid-out procedures can be followed by future student leaders

to ensure no patient's care falls through the cracks. Additionally, the clinical practices are in line with subspecialty guidelines and recommendations, which should be the goal for all specialized SRFCs.

Subsequent generations of student leadership will therefore be able to focus on expanding gynecologic services and furthering the mission of the clinic in conjunction with population needs. Each of these discussed changes represent procedural modifications that will have sustained impact. An additional effect of this process is embedding continued examination of patients' needs on an ongoing basis into the student volunteer roles – thus, quality improvement is now ingrained within the processes of the sub-specialty SRFC.

MEDICAL STUDENT SYSTEM-LEVEL LEARNING TAKEAWAYS

While student involvement in free clinics is often a component of medical education, dedicated time for clinical students to play a key role in examining the structure and processes and innovating care delivery is not always offered or distinctly valued.⁶ Involvement of clinical students in SRFC has been shown to be beneficial for preclinical students and patients alike, yet this absence of protected space too often leaves SRFCs turning in circles as students struggle to make effective, lasting change.⁷ The Population and Clinical Medicine course offered a unique space for the student leaders of Women's Clinic to meaningfully engage with quality improvement principles, and in doing so elevate the level of care provided to a predominantly underserved population. It is valuable to offer interested medical students an opportunity to engage in hands-on system level learning, whether through this model of graduate student work or the creation of clinical and preclinical electives. Importantly, the student leaders of SRFCs should have time, training, and support for such work to create systems that allow for more thoughtful and equitable care delivery to marginalized communities. In detailing these efforts, the student leaders hope to aid other SRFCs and sites of medical education in creating more sustainable processes and add to the growing call for greater incorporation of these experiences into medical education.

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Conflict of Interest

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