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Creating Continuity of Care Within Student-Run Free Clinics

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Abstract

Student-run free clinics (SRFC) play an important role in filling gaps in the healthcare system by providing accessible, cost-free care to underserved populations. Continuity of care (CoC) can improve patient outcomes, but challenges such as inconsistent volunteer participation and patient follow-up can make CoC difficult to implement in SRFCs. The authors acknowledge the deficiencies in existing literature guiding SRFCs and highlight a systematic model to address barriers to CoC. This article proposes a structured CoC model for SRFCs, encompassing three levels: micro (patient-provider relationships), meso (clinic structure and volunteer management), and macro (coordination with external healthcare facilities). These levels aim to streamline patient-provider interactions, optimize clinic operations, and coordinate care beyond clinic visits. Some suggested strategies include fostering patient-provider trust through telehealth follow-ups, improving clinic organization with shared electronic medical records (EMRs), mitigating volunteer turnover with consistent leadership and team meetings, and partnering with local pharmacies. The implementation section explores limitations, including resource constraints and adaptability challenges, and proposes evaluation measures like tracking follow-up rates and collecting patient feedback to gauge the model's efficacy. This structured approach offers a framework adaptable to SRFCs' specific needs to enhance CoC and improve the overall quality of care patients receive.

Introduction

Student-run free clinics (SRFCs) can play an integral role in providing access to healthcare for underserved populations in different communities. Services offered at these clinics are available to community members regardless of health insurance status. These clinics are often led by medical students and supervised by physicians or other health care providers. Volunteers in the clinic can range from physicians, physician assistants, pharmacists, nurse practitioners, registered nurses, residents, medical students, and undergraduate students. However, since many of the aforementioned are participating on a volunteer basis, and therefore irregular basis, patients may not always see the same providers or receive the same information, which may contribute to decreased quality of care and patient outcomes.

Therefore, continuity of care (CoC) is an integral part of SRFCs. Current literature defines CoC as continued contact between a patient and provider, which improves understanding of the patient's health views and priorities.[1] Various studies have been published showing how CoC leads to improved outcomes.

A systematic review found that greater CoC, across multiple specialties and countries, was

associated with decreased mortality.[1] This finding was due to improved coordination of care for preventive measures such as immunizations and more effective counseling to promote healthy habits. Additionally, repeated follow-up was shown to increase patients comfortability with disclosing vital medical information allowing for more effective medical management. Another study found using CoC interventions, such as telehealth follow-up upon discharge, medicine reconciliation, and information booklets, led to a significant decrease in the number of hospital readmissions within 3 months of discharge.[2] This finding was attributed to the benefits of continuity between patients and providers in preventing future hospitalization through three dimensions: relational continuity (long-term communication between patient and provider), informational continuity (availability of information surrounding prior hospitalizations), and management continuity (restarting or refining previous medical management following hospitalization).[2]

Overall, these studies highlight the importance CoC plays in improving the overall long-term outcomes of patients. However, there is limited literature on models for SRFCs to implement, initiate, or improve upon CoC in their clinics. In this article, we propose a guide for clinics to follow to minimize barriers to the implementation of an effective CoC plan.

Project Proposal: Structured Continuity of Care

SRFCs can improve efficiency and patient outcomes by having a structured method of CoC in place. In this proposal, we suggest that SRFCs implement a model, as outlined by Ljungholm et. al 2022, that focuses on three levels of continuity. These levels include: 1. Patient visits and long-term relationships (micro level); 2. Clinic structure and volunteers (meso level); 3. Information sharing and coordination with other health care facilities (macro level).[3]

At the level of individual patient care, it is important to establish continuity by developing long-term relationships between patients and the people who serve in the clinic. This can include volunteers, students, and providers. Previous qualitative studies from free clinics have shown that patients experience reduced stress and improved CoC when healthcare providers give clear medical instructions and culturally competent care.[4] Therefore, we suggest taking additional time to understand the individual needs of a clinic's patient population to best relay medical education and build trust with patients.

When looking at clinic organization and structure, volunteers are the heart of SRFCs. However, volunteers typically will participate on an irregular basis, and there is typically volunteer turnover as students progress into clinical rotations or graduate. Inconsistent availability means that patients may not always see the same providers or receive the same information, which may contribute to decreased quality of care and patient outcomes. Many of these barriers can be alleviated with improved clinic organization and consistent leadership within the clinics. Barriers to CoC from volunteer turnover can also be alleviated through the integration of a shared communication platform, such as electronic medical records (EMR), which are known to improve CoC and accessibility to patient information.[5] EMRs can facilitate streamlined access for different providers and students, ensuring consistent accessible patient care, and allowing for pre-screening for optimized appointments and clinic management. This reduces the need to restart the care process with a patient and minimizes the likelihood of information gaps between provider care in subsequent visits. It is also critical to consider what care and resources the patient receives following a clinic visit because some patients may be unable to follow up. Compliance rates with appointments are difficult to predict and can be low, particularly in patient populations with barriers to following up.[6] Major barriers include patients having to travel to receive care at the clinic or to receive medications, work schedules conflicting with clinic times, financial constraints, and potential language barriers.[7] On a macro level, SRFCs can explore coordinating care with other healthcare organizations to better meet the needs of patients who are not able to follow up.

Implementation and Drawbacks

The main question in implementing this model is: what resources will be needed for it to

happen and how can clinics integrate this framework into their clinic today? We provide practical measures that address each level of CoC that SRFCs could feasibly implement.

Individual patient level

Building long-term relationships with patients in SRFC can be challenging due to changes in schedules, students, staff, and physicians between clinic visits. One feasible solution to improve relational continuity would be dedicating time for students to call patients. After ensuring proper patient consent, a volunteer team of medical students can use telehealth to follow up with patients during clinic hours regarding their latest visits. We define telehealth as providing care through various modalities that are not in-person, including video calls, communication via EMR or other secure applications, and phone calls. These calls will also serve to coordinate care with other providers, resulting in improved patient outcomes and CoC.[8] These dedicated call times are also used for contacting patients before their visit to confirm the appointment, provide instructions such as directions to the clinic and which medications to bring, and discuss any questions they may have. The long-term effects would improve patient satisfaction knowing their care is being managed while also allowing patients to take an active role in their health.

Additionally, the integration of telehealth visits can ensure consistent patient follow-up allowing proper implementation of the proposed CoC in the care of patients at SRFCs. A study completed by an SRFC during the coronavirus disease 2019 (COVID-19) pandemic lockdown analyzing the utilization of telehealth visits for patients from low socioeconomic status demonstrated an improvement in the no-show rates compared to in-person visits.[9] The study additionally analyzed the availability of appropriate technology for the utilization of telehealth visits (computers, smartphones, conventional phones) and found that 90% of participants had readily available devices.[9] The use of telehealth in an SRFC will have to work within the constraint of the provider, namely providing services to community members within the state that the provider is licensed in.

However, when implementing telehealth, there can be a risk of creating inequity in care depending on the availability of interpreter language services for patients who are not native English speakers. Clinics can ensure that non-English-speaking populations are equally included by utilizing the use of in-person translators, third-party interpreter services, or integration of telehealth translators through the SRFCs' primary institution.[10] To streamline the process of providing appropriate interpreter services, clinics can confirm with patients their preferred language for any follow-up telehealth calls or visits ahead of time. For SRFCs without access to interpreter services, some organizations provide funding to support telehealth and other needs, such as the National Association of Free & Charitable Clinics. Furthermore, there are free, secure platforms that allow clinics to add existing interpreter services to a phone or video call, such as Doximity Dialer.

While patients are waiting to be seen by providers or waiting to leave a clinic, they can access the in-house resources available to them. This would include pamphlets about public health or lessons about preventative health measures, in their native languages, to teach patients about their conditions and medications. This can further aid patients by improving patient healthcare literacy. Even with changing providers, patients with improved healthcare literacy can receive better CoC if they can understand and communicate previous care plans at future clinic visits.

Clinic Structure level

The continuity of care framework heavily depends on consistency among students and physicians to ensure care is carried out by the same team for each patient. Turnover of clinic volunteers, either due to the demand of curriculum or faculty duties, poses a major barrier to this framework as the care of the patient begins rotating through new teams. While increasing the number of volunteers can alleviate inconsistent services to patients, this may not always be possible due to limited resources, including funding and physical space, as well as challenges in recruiting volunteers. Other considerations to address limitations to successful CoC at the level of clinic structure include designating responsibilities and weekly, team meetings.[11] Team meetings at the beginning of the clinic can be a feasible and

effective strategy to provide updates on any changes regarding clinic proceedings and to educate the volunteers on the workflow for the day. Furthermore, meetings can be used to designate tasks among students and more effectively triage patients, which has been shown to help improve efficiency in clinics.[12] In fact, these meetings ensure that team members are on the same page and can decrease patients' need for personal continuity.[3]

Lack of consistent leadership can be another barrier for SRFCs. While medical student leadership is important and necessary, most clinic leaders are only involved for approximately a year.[13] One solution is to incorporate long-term faculty advisors who can continue to mentor students in future years.

Finally, a shared communication platform via EMR can be instrumental in clinic structure. While many SRFCs already have EMR access, it is important to highlight the role EMRs can play. For future visits, patients with known chronic medical conditions can be assigned ahead of time to medical students. These medical students can retrieve information from the EMR and use it to better triage patients and create enough appointment time for patients with more complex medical histories.[14] Furthermore, EMRs have utility in SRFCs by providing medical students early exposure to working with EMRs.[15] This may provide further incentive for students to remain involved at SRFCs for a longer period and decrease volunteer turnover.

Coordination of care level

Cooperating with other healthcare organizations is another key component of CoC that may not always be implemented within SRFCs. Developing relationships with other healthcare organizations increases access to patient services, especially in the face of barriers such as transportation issues. One solution is creating a partnership with the pharmacies in patients' neighborhoods, which would allow for accessibility, familiarity, and trust for patients. Having access to pharmacies closer to where patients live will allow patients to maintain their daily routines, rather than creating additional barriers for them to meet their healthcare needs. Pharmacists can teach patients about their medications and address

questions about medications. Additionally, clinic leadership can consider reaching out to their medical school institution or other local hospitals. Hospitals may be willing to coordinate care to offer radiologic and laboratory services that may be at a closer location for patients and improve continuity.

Coordination of care expands beyond the care provided at SRFC. Patients may experience emergent acute complications related to their chronic conditions and visit hospitals as a continuation of their care. Patients who solely receive their primary care at SRFCs would benefit from a shared EMR system between local hospital systems and SRFCs. One study found that there was a significant risk to patient safety amongst healthcare systems that offered different EMR systems, including listed drug allergy information not completely transferring to a different EMR.[16] Additionally, the benefit of a shared EMR system between ambulatory and inpatient settings includes access to prior laboratory studies saving both the patient and healthcare system costs.[16] Subsequently, following discharge from a hospital, patients are typically advised to follow up with their primary care provider. SRFCs serving as their primary provider would be able to better see what care and complications the patient had while hospitalized, resulting in a more efficient and accurate hospital follow-up, with a shared EMR.

Assessing continuity in clinic

Each SRFC has factors that make it unique such as patient population, location, resources, and leadership. It is not easy to compare one clinic or apply the same rules to all of them. Therefore, we suggest ways to assess the outcomes of a structured CoC in clinics.

1. Track appropriate patient follow-up rates: This can be implemented as a quality improvement or research initiative. Clinics can document how often patients who need follow-up are returning versus no-showing or canceling appointments.
2. Offer patient feedback surveys. Surveys can be disseminated via print, email, or through other methods that minimize potential costs to patients. Survey questions can focus on aspects of the visit patients appre-

ciated, whether they had a better understanding of their health and treatment plan, and suggestions for improvement.

3. After-visit telehealth calls. These calls can include check-ins with patients to assess if they are doing better and have received their medications or other services.

Drawbacks

The major drawbacks of this proposal surround access to resources for SRFCs. Financial constraints can prove to be a barrier to accessing EMRs or partnerships with local pharmacies. Clinics could use free or cheaper EMRs to accommodate their budgets. However, without access to EMRs, SRFCs rely on physical prescription processes, faxes, or telephone calls to communicate with pharmacies. Using these methods could be prone to errors and less efficient. This highlights the need for adequate support for these clinics to comply with e-prescribing mandates in each state and provide quality patient care. It may be difficult for clinics to have consistent leadership or availability without support or financial backing. If the leadership keeps changing it can become difficult to implement the suggested changes.

Our proposed model for structured CoC may not be universally applicable or the best solution for all clinics. Structured CoC can benefit patient efficiency and satisfaction, but it can also take time and resources from clinics to address these changes. One study found that clinics should emphasize frequent check-ups for patients with chronic conditions over continuity of care in their clinic model.[17] Another consideration is that some safety-net clinics may prioritize acute care needs due to limited resources, making long-term follow-up less feasible or a lower priority. Therefore, any CoC framework must remain adaptable to the unique objectives and operational limitations of each clinic setting.

Conclusion

The volunteer-based nature of student-run free clinics leads to unique problems for CoC such as provider availability, limited services, and irregular availability of volunteers. We propose a model for SRFCs to structure their clinics with a community-centered approach. By integrating EMR and partnering with community pharmacies, SFRCs can manage patients' conditions more consistently and improve patient outcomes. Telehealth can allow clinics to fill the gap in post-visit care and have a role in managing their conditions. This model strives to build an efficient, sustainable, and meaningful healthcare experience for patients, students, providers, and all others involved in student-run free clinics.

Disclosures

The authors have no conflicts of interest to disclose.

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