



Pivoting to Respond to COVID-19: Lessons Learned from Health Initiatives of a Student-Run Clinic

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Abstract

Bridges Collaborative Care Clinic (BCCC) is a student-led, nonprofit organization providing no-cost health and social services to chronically marginalized populations in Portland, Oregon. In response to physical distancing measures during the early stages of the coronavirus disease 2019 (COVID-19) pandemic, health professions programs across the country suspended in-person clinical activities for students. As a result, BCCC clinical operations were canceled for the foreseeable future. In response, student leaders and volunteers started four health initiatives including the following: 1) organizing a mask-making network to create homemade masks for local organizations in need; 2) forming a real-time capacity needs assessment for local safety net organizations for people with substance use disorders; 3) collaborating with a local Asian health services nonprofit to organize a multilingual volunteer and translator network to deliver food and health supplies to Vietnamese, Korean, Cantonese, and Mandarin speaking elders; and 4) organizing a virtual 5K run/walk fundraiser for an organization that provides temporary housing and other services for the houseless community in Portland. The lessons learned from these pandemic response initiatives are summarized here for student-run clinics, educators, and others interested in starting similar initiatives.

Introduction

The progression of the COVID-19 pandemic has led to disproportionately worse health outcomes for numerous vulnerable populations including elders,^{1,2} people experiencing homelessness³ and people with substance use disorders.⁴⁻⁶ At the same time, many students in health professions programs were rapidly transitioned to physically distanced education through online and remote learning formats.^{7,8} Because of this, a multitude of student-led health clinics – most of which serve vulnerable populations – were subsequently closed for the foreseeable future.⁹⁻¹² Despite state mandates and university regulations barring student-led health clinics from providing in-person health services, some clinics have pivoted to lead other health initiatives to serve affected communities.

The Bridges Collaborative Care Clinic (BCCC) is an interprofessional (pharmacy, nursing, medicine, dentistry, public health, pre-medical, biomedical engineering, and clinical research) student-run, no-cost health and social services clinic in Portland, Oregon. Interprofessional student leaders, supported by faculty leads, operate a weekly evening clinic for shelter residents transitioning out of homelessness. Patients are seen by nursing, medical, public health, and pharmacy students where they can reconcile medications and receive prescriptions, get wound care treatment, monitor chronic diseases, and undergo diagnostics and get referrals to higher levels of medical care.

BCCC volunteers responded to the coronavirus disease 2019 (COVID-19) pandemic with four distinct health initiatives aimed at supporting

vulnerable populations. These following projects were included: 1) organizing a mask-making network to safely create and distribute homemade masks to local organizations in need; 2) forming and implementing a real-time capacity needs assessment for local safety net programs and organizations for people with substance use disorders; 3) collaborating with a local Asian health services nonprofit to organize a multilingual volunteer and translator network to deliver food and health supplies to Vietnamese, Korean, Cantonese, and Mandarin speaking elders; and 4) organizing a virtual 5K run/walk fundraiser for an organization that provides temporary housing services for the houseless community in Portland. This paper describes the project design, implementation, outcomes, and lessons learned for each of these four initiatives.

Methods

Data from each health initiative were collected as part of internal operations and did not describe participants or recipients of services, but rather characteristics of the services themselves as well as their operations and output. For this reason, institutional review board approval was not necessary. This manuscript was approved by the BCCC Research, Improvement, Evaluation, and Dissemination Committee and deemed to not be human subjects research.

Community Mask-Making Network

Personal protective equipment (PPE) manufacturing and supply chains were not prepared to address the increased demand resulting from the rapid spread of COVID-19 in the United States.⁹ Although the data were largely inconclusive at the time, the Centers for Disease Control and Prevention and World Health Organization recommended that cloth masks be worn in public settings, in conjunction with practicing physical distancing, to mitigate the spread of COVID-19.^{13,14} However, adherence to these recommendations is difficult for some vulnerable populations due to economic hardships and inability to physically distance.^{2,15}

BCCC students designed two mask patterns and step-by-step instructions that volunteers and community members could easily follow. All

materials were obtained through a small donation of BCCC funds, followed by private donations of funds and materials from the community.

Volunteers were recruited through our network of BCCC student volunteers, community partners, and personal contacts. Volunteer positions included material transporters, mask pattern cutters, and mask sewers. All mask materials were transported in containers and either left in front of household doors or handed off to individuals while adhering to physical distancing and mask-wearing mandates to minimize contact among volunteers. Masks were quarantined for at least 48 hours before being sent to local safety net clinics, low-income housing groups, and other organizations in need for distribution to vulnerable populations.

Oregon Substance Use Disorder Resource Collaborative (ORSUD)

Following Oregon Governor Kate Brown's stay-at-home orders in March 2020, members of the Oregon Health & Science University (OHSU) inpatient addiction medicine consult service recognized that local safety net programs were being severely impacted by COVID-19 restrictions.¹⁶ Discharge into addiction treatment and care coordination for recovery services was incredibly limited. Due to release from in-person courses and clinical rotations, volunteer health professions students were able to provide administrative support to this clinical service by collecting contact information for local addiction and harm reduction organizations and then disseminating to the broader treatment community.¹⁷ ORSUD volunteers and team leaders also identified immediate resource needs through daily assessment surveys. ORSUD partnered with BCCC volunteer leaders to connect community organizations to its network of personal-protective equipment resources and volunteer grant writers and administrators to help with community organizations' needs.

Care Packages for Asian Health Services Center Elders

The Asian Health Services Center (AHSC) in Portland, Oregon is a recognized nonprofit organization that provides language and culturally specific services to its participants with a focus on

community engagement, health integration, and health care services. Asian elders, living at the intersection of elevated susceptibility to COVID-19 due to age,¹ increased isolation in the home environment,¹⁸ and targets for racism,¹⁹ were disproportionately affected by COVID-19. BCCC students collaborated with AHSC to create and deliver care packages to AHSC registered elders.

First, AHSC staff called all participants and collected delivery information for those who would benefit by receiving a culturally specific care package consisting of one roll of toilet paper, one spray can of Lysol™, one spray bottle of bleach, two small bottles of soy sauce, two masks with instructions on proper use and cleaning, and one 20-pound bag of brown rice. After enough AHSC registered elders responded to AHSC leadership about what and how many supplies they needed, BCCC student organizers reached out to the BCCC volunteer base and recruited students interested in helping with distribution, with a preference for bilingual students speaking Mandarin, Cantonese, Vietnamese, or Korean. All recruitment was done via Google forms (2020, Google, California) which asked students for contact information, roles they were comfortable with, and language fluency. Students who could not speak any of the target languages but could drive (transporter) were paired with students who could translate for them by phone (translator). The goal in this pairing was to foster multicultural collaboration within the student volunteer base.

On designated days, the transporter drove to the AHSC site to pick up care packages while wearing the appropriate PPE. AHSC staff provided students with delivery information, drop off locations (optimized for minimal driving between households), and the care packages for each client. The translator then contacted each recipient to coordinate the best way their transporter could drop the care package to meet each participant's individual needs. Any care packages that could not be delivered were returned to the AHSC at a later date for subsequent distribution.

Virtual 5K Fundraiser

Although BCCC clinic operations were cancelled due to various restrictions, there were several local organizations that continued providing services. BCCC's primary partner organization is

Transitions Projects Inc. (TPI),²⁰ a housing and social services organization providing services to over 10,000 individuals experiencing homelessness in the Portland metropolitan area. TPI hosts the physical space where BCCC holds clinics, and they continued to provide services throughout the pandemic. To help support TPI participants, BCCC students organized a virtual 5K run/walk fundraiser with all proceeds going to TPI services that directly benefit participants.

The fundraiser was promoted using BCCC social media platforms, local news stations, and personal networks.²¹ Using an online ticketing platform, those who were interested chose a tiered pricing level ranging from \$22-35, which offered a t-shirt and/or BCCC sticker. Registrants could also choose to participate without receiving a t-shirt or sticker with a suggested donation of \$10. Any registration amounts of \$10 or above offered registrants the opportunity to win a \$20 gift card to a local restaurant. Two hundred race registration packets were created and mailed and included a t-shirt and sticker for each registrant.

Registrants were given instructions on how to track their virtual run and post to social media with appropriate tagging. The run/walk could be completed anytime between May 24th and June 13th of 2020. On June 14th, the run concluded and gift card winners were selected randomly.

Results

Community Mask Making Network

From inception to completion, a total of 89 volunteers participated in the mask making network. In total, 11,276 masks were donated either to organizations serving vulnerable populations or to the populations themselves. Table 1 shows the types of organizations requesting and receiving donated masks.

Oregon Substance Use Disorder Resources Collaborative

By August of 2020, the ORSUD public-facing resource document included information on over 140 organizations, and over 100 individuals and organizations had been subscribed to the ORSUD email distribution list. Responses to the daily needs assessments received from safety net organizations primarily included the need for

Table 1. Organizations requesting and receiving masks from the BCCC mask making network

Organization Type	Masks Donated (n)
Clinical and Medical Services	5,930
Housing and Social Services	4,220
Local Government	400
Other	726
Total	11,276

BCCC: Bridges Collaborative Care Clinic

PPE and telemedicine technology support. BCCC grant writing volunteers submitted a grant on behalf of a local detoxification center, which was awarded with three laptops with video chat capability to expand telehealth capacity. Community partners requesting PPE were connected with the mask-making network. Lastly, through partnering with ORSUD, BCCC provided funding for 50 meals for individuals residing in TPI shelters.

Care Packages for Asian Health Services Elders

Volunteer recruitment generated 107 responses; 54 (50%) filled out waivers to participate. Many reported being comfortable speaking and translating languages other than English (n=53, 49%), which included Vietnamese (n=16, 30%), Mandarin (n=11, 21%), Cantonese (n=10, 19%), Korean (n=5, 9%), Spanish (n=4, 8%), Japanese (n=3, 6%), Farsi (n=1, 2%), Lao (n=1, 2%), and Arabic (n=1, 2%). There were 144 care packages delivered to 159 individuals speaking Cantonese, Vietnamese, Mandarin, and Korean as primary languages.

Virtual 5K Fundraiser

Among those who registered for the walk/run (n=201), 85 (42%) were current students, 15 (7%) were essential workers, and 101 (50%) were community members. Direct donations were made by 14 individuals. Expenses included t-shirts, stickers, mailing costs, online registration service fees, and gift card prizes which totaled approximately \$3,700. Race registrations and donations totaled approximately \$5,800, for a net gain of nearly \$2,100. This donation was made to TPI and used to provide meals to TPI participants.

Discussion

The BCCC mask-making, rapid resource up-

dates, care package delivery, and virtual run initiatives have demonstrated the potential for student-run health clinics to take an active role in the public health pandemic response continuum, regardless of ability to provide in-person medical services. Helping to fill gaps in the PPE supply network, collect and efficiently communicate health system services updates, provide supplies for isolated populations, and raise funds for organizations in need were reasonable goals for BCCC and were all successful. Through development, implementation, and reflection several concepts were identified that explain the motivation to develop rapid projects in response to COVID-19.

Students from various health professions backgrounds were motivated to participate in projects and became a key population volunteering their services and time. Collectively, these four projects garnered 162 student-volunteer engagements (volunteering directly or as support with one of the four mentioned projects) and 161 community member engagements. This represents a substantial investment of time and energy into efforts to mitigate the impact of COVID-19 on vulnerable communities. Multiple articles have discussed the potential role for health professions students during the COVID-19 pandemic^{7,22,23} and the response of our volunteer base reflects the desire of health professions students to contribute to health improvement efforts.⁸ Importantly, we found that students from public health, pharmacy, dentistry, medicine, nursing, and biomedical research programs engaged in these projects. Other health professions students might have been interested, including students from programs such as social work, physician assistant, nutrition, and biomedical engineering. Unfortunately, the sign-up links were not directly sent through listservs for these health professions programs and we did not collect data in signup forms about these health professions. Student-led clinics should seek to recruit a variety of health professions students in their future collaborations. Interprofessional input is important for all student-led clinics.

Marginalized populations and the safety net programs that serve them had increased needs for resources and space during the initial spike of COVID-19 cases.²⁴ PPE was the most requested

need, but we also received requests for monetary donations, cell phones, help with promoting events and disseminating health services information, and, on one occasion, assistance completing a grant application. While the scope of the four initiatives varied in purpose and style, they did not cover the full breadth of potential options to support local populations and organizations. Thus, we recommend that student-led clinics, and other organizations looking to fill gaps in crisis situations, create active outreach teams and contact a variety of organizations to discover where gaps exist, and then consider the feasibility of responding to them.

Fundraising for organizations in need through the student-run clinic platform galvanized community and student donors to engage in charitable giving. Student-led clinics that are affiliated with health professions education programs are at the intersection of health services, education, and advocacy, and are typically supported by larger institutions. Institutional backing and access to institutional networks lends substantial power in fundraising. The BCCC virtual 5K run/walk was able to tap into larger health professions education program networks to stimulate charitable giving for another organization that was continuing to operate and even expand services during the beginning of the COVID-19 pandemic. Further, this project helped promote connectedness in a time of physical distancing. This project was feasible and safe, and we highly recommend that other student-led clinics consider this as a potential way to engage donors and support the populations we serve.

Undoubtedly, there will be another pandemic.²⁵⁻²⁷ When the next pandemic will happen is unknown, but student-led health clinics will likely remain in a position to provide supportive services to their patient populations and their community partner organizations. These four initiatives each provide insights for future endeavors. Although student-led clinics are commonly centered around providing in-clinic medical and health services, we advocate for an interprofessional, collaborative model that involves a wide range of health professions students and engages their collective skills and expertise in promoting both individual and population health.

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