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Introduction

Poor oral health and low oral health literacy are national symbols of social inequality across the United States. Poor oral health is more common amongst people who are low-income, uninsured, and/or members of racial/ethnic minority, immigrant, or rural populations.³ Children from low-income families have three times as many untreated cavities compared with children from higher-income households, and over 40% of low-income and non-Hispanic Black working-age US adults have untreated tooth decay; this leads to lost school and work hours, productivity, and job opportunities.^{2,4} In order to reduce the impact of these health disparities, there is a critical need for intervention at multiple levels to improve access to both health care and education.

The Student Community Outreach for Public Education (SCOPE) program is the University of the Pacific School of Dentistry's student-led, volunteer-run community service organization that serves the oral health needs of under resourced members of the Bay Area while fostering professional growth amongst students. SCOPE officers lead community health projects and encourage participation in service by the UOP student body. However, when the coronavirus disease 2019 (COVID-19) pandemic put an unprecedented halt to in-person community oral health events, SCOPE officers pivoted to using virtual platforms to continue providing oral health education to communities in need.

As the world reopens, SCOPE officers are beginning to reimplement legacy in-person service events, despite most student volunteers having never witnessed a UOP community health service event before. SCOPE's leadership set 3 main goals for this project: 1. Continue to provide oral health education and resources to underserved populations throughout the COVID-19 pandemic 2. Relaunch in-person community health events and analyze any challenges faced in their re-implementation 3. Strategize solutions for SCOPE leadership to mitigate these challenges in the coming years.

Methods

Virtual Programming

Due to COVID-19 pandemic restrictions on hosting in-person community health events, SCOPE officers had to get creative in the delivery of oral health information and resources. Virtual events and projects were created to continue to serve the needs of the communities we usually serve in-person.

In past years, one of SCOPE's largest events is the Chinatown Health Fair where volunteers provide dental screenings and oral health education to the public. In 2020, SCOPE volunteers and faculty supported members of the Chinatown community by providing adult and child oral health workshops, followed by "Q/A with the dentist." One SCOPE officer conducted a literature review, gathering data about health literacy, oral health literacy, and low health literacy among older adults to guide future projects.

Several projects allowed for interdisciplinary collaboration and professional development. Officers attended a collaborative event with UOP Pharmacy students where they shadowed telehealth appointments, learned about Medicare, diabetes and oral health, xerostomia and medications, sleep apnea, and clenching and grinding. One officer collaborated with ASDA's Community Service Committee to execute a "Virtual Oral Health Education Day" for kids. Another served on a high school student panel alongside other dental professionals to introduce at-risk students to a career in dentistry. SCOPE also collaborated with UOP Club Medicine in Motion to raise funds for our individuals with special needs via a Halloween "Boo Gram" fundraiser.

Finally, officers further contributed to SCOPE's legacy by updating SCOPE's online presence and branding. Officers updated the SCOPE Landing Canvas portal where information about community oral health resources and all events are organized, worked with faculty to redesign the official logo, and dramatically increased SCOPE's presence on social media via Instagram.

In-Person Programming

Several officers helped plan or volunteered at the UOP COVID-19 vaccine clinics. Once health regulations allowed, SCOPE officers faced the task of re-implementing in-person oral health service events. Their first official in-person event back was at San Francisco City Impact Academy in the Tenderloin. Seventeen volunteers were divided into six classrooms of first through eighth graders and gave oral health education presentations followed by activities including a "dissolving tooth" experiment, a "sugar bugs" magnet game, "dress like a dentist," and a "tooth goop" flossing game; volunteers have since returned to SF City Impact.

Student volunteers continued serving the Chinatown community back in-person at the 26th Annual Chinatown Health Fair and at an oral health education workshop for kids at Gordon J. Lau Elementary School where DDS and dental hygiene students teamed up to teach six classrooms of pre-k to second graders. Volunteers also presented at the Tenderloin Community Development Health & Wellness Event which included tabling about oral health education, demonstrations and activities geared towards children, and information on becoming a patient of the UOP clinic.

The 27th Annual Senior Smiles and Wellness Health Fair provided information and services by students and faculty volunteers from Pacific's dentistry, audiology, nutrition, physical therapy, and social work programs. Offerings included free health and wellness services such as blood glucose testing, blood pressure testing, dental health screenings, nutrition counseling, vision screening, and hearing screenings.



Connie Cheng, RDH at the 25th Annual Virtual Chinatown Health Fair



SCOPE officers volunteering at the UOP COVID-19 vaccine clinic for individuals with intellectual and developmental disabilities



SCOPE Chinatown Health Fair Animated Flyer (distributed via hard copy and social media)



DDS student volunteers tabling about oral health education at the Tenderloin Community Health & Wellness Event



Dr. Bonnie Jue and SCOPE volunteers at the 26th Annual Chinatown Health Fair



Dr. Tim Verceles, SCOPE volunteers, and UCSF volunteers at SF City Impact Academy



SCOPE volunteers and San Francisco City Impact students participating in oral health education games



SCOPE logo prior to 2021



New SCOPE logos designed by officers & implemented 2021



Professor Christine Miller alongside DDS and dental hygiene students volunteering at Gordon J. Lau Elementary School in Chinatown



Oral-health related trivia shared on SCOPE Instagram



SCOPE volunteers presenting oral health education to first graders at SF City Impact Academy



SF City Impact Elementary Education Event animated flyer

Results

SCOPE officers succeeded in continuing to provide oral health education and resources to underserved communities in the Bay Area including children, seniors, and individuals with disabilities throughout the COVID-19 pandemic through virtual programming and events. They also continued to strengthen the organization in innovative ways like increasing their presence on social media by 3x previous years and updating the branding of the organization. Once health restrictions lifted, SCOPE officers reimplemented in-person events which both continued to serve their target populations and allowed further opportunities for professional development and leadership amongst students. The organization also provided several opportunities for students' collaboration in interdisciplinary events with other health professionals. Though the past couple of years looked slightly different than normal, SCOPE continued to provide opportunities for students to serve their community, increase their professional development, and improve upon the "heart" portion of UOP's "Head, Heart, Hands" core values.

Conclusion & Future Directions

The SCOPE Program at University of the Pacific Arthur A. Dugoni School of Dentistry is a student-run volunteer community service organization with the mission to develop dental professionals committed to improving the health of all people. When SCOPE community events could not be held in their normal form during the COVID-19 pandemic, officers continued this mission through a creative mix of virtual and safe in-person service. SCOPE's activities for the 2020-21 and 2021-22 school years allowed for continued support for the communities they normally serve as well as successful outreach into new groups through the power of tele dentistry.

Once health regulations allowed, SCOPE officers faced the challenging task of re-implementing in-person service events. SCOPE is a student-led organization where senior students mentor incoming officers to share resources about how to host these events. As two classes had graduated since the COVID-19 pandemic began, it became clear that there was a lack of continuity of knowledge surrounding hosting legacy events. Furthermore, historically, SCOPE always receives more volunteers than necessary for every event; however, as the majority of students had never witnessed or experienced an in-person UOP community health event, officers were faced with the task of motivating the student volunteer force. While SCOPE officers collaborated with faculty volunteers and other Pacific programs to host several successful events, analysis of the challenges faced in their implementation will be critical to the organization's success in the future.

Upon analysis of the current status of the organization for future improvement, several areas surfaced that should be focused upon. Students are more likely to volunteer to help with an event if they have witnessed or volunteered with an event previously; perhaps there is a way to incorporate participation in a community health service event into the first-year curriculum or provide an incentive to get students involved earlier. Furthermore, the gap in knowledge between organization leadership due to the COVID-19 pandemic displayed the need for improved documentation of event resources for SCOPE officers. While the SCOPE Landings Canvas site is available to all officers, perhaps a more interactive tutorial and subsequent activity would allow improved understanding and use of the resource. Finally, as leadership transition amongst officers is quick, accurate faculty contact information for events is imperative to be shared in a timely fashion.

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