

The Student Dermatology Clinic for the Underserved: A Service-Learning Model to Promote Skin Health Equity

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The Experience

One in four Americans suffer from dermatologic disease, yet only one in three are seen by a dermatologist.¹ The economic burden of skin disease on quality of life is estimated to amount to \$56.2 billion and is likely magnified for people in underserved communities who face several barriers to accessing dermatologic care.^{2,3} People with low income seeking dermatologic care face longer wait times and higher rejection rates than people with private insurance.⁴ The geographic maldistribution of dermatologists in majority White, well-resourced areas has further contributed to disparities in access to dermatology providers.⁵ Consequently, Hispanic, Black, uninsured people, and people with low income are less likely to utilize outpatient dermatology services compared to their counterparts.⁶ Barriers to equitable dermatologic care extend well beyond physical distance. Financial and racial barriers preclude access to novel dermatologic treatments, including biologic therapies for eczema and psoriasis, negatively impacting health outcomes in medically-marginalized communities.⁷

We propose the implementation of dermatology-free clinics as a patient care model to provide free dermatologic care to patients who lack access to specialty care. The Student Dermatology Clinic for the Underserved (SDU) is a student-faculty-run free clinic that operates as a sustainable service-learning model for dermatology residents at the University of Pittsburgh Medical Center (UPMC) and medical students at the University of Pittsburgh School of Medicine (UPSOM). A commitment to increasing sustainable community partnerships in dermatology residency programs across the US can help bridge the gap in access to dermatologic care while strengthening the local healthcare infrastructure. By detailing our experiences at the SDU clinic, we hope to guide other dermatology residency programs interested in integrating a dermatology-free clinic into their residency program curriculum.

The SDU functions as a partnership between the UPMC Department of Dermatology, the UPSOM Dermatology Interest

Group (DIG), and the Squirrel Hill Health Center (SHHC). SHHC is a federally-funded community health center with a focus on delivering healthcare to marginalized people, including immigrants, refugees, people of color, and people who are uninsured. The partnership with primary care providers at the SHHC is essential for coordinated, patient-centered, longitudinal care. Patients are referred to the SDU by primary care physicians at the SHHC. Our dermatology providers discuss patient care and follow-up instructions with SHHC providers to ensure continuity of care. This framework allows for the optimization of the management and treatment of patients with both acute and chronic dermatologic diseases. The partnership between a local community health center like SHHC and an academic institution provides a unique and rewarding learning environment for dermatology trainees, while providing high-quality dermatologic care to underserved patients.

The SDU hosts quarterly clinics with approximately ten patients seen per clinic. The UPMC Department of Dermatology provides all necessary supplies, including but not limited to punch, shave, and excisional biopsy kits, silver nitrate, band-aids, and currettes. All biopsies are read by the University of Pittsburgh Physicians Dermatopathology Unit free of charge. DIG student coordinators oversee medical student volunteer and patient scheduling, while dermatology residents coordinate resident participation. Service-learning was recently added to the aims and objectives of the UPMC dermatology residency curriculum and all residents are required to participate in at least one service-learning activity annually.

The learning environment at the SDU facilitates vertical learning and collaboration at all training levels. Patients are first seen by a team of medical students who present the history and physical exam findings to a dermatology resident. The medical student and resident team then assess the patient together, providing residents the opportunity to teach dermatology to the medical students and hone their clinical reasoning skills. The dermatology attending physician also precepts the medical student and

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resident team and upholds the role of a “service champion.” As a role model for trainees, the dermatology attending physician exemplifies the importance of community service and ensures that the evolving needs of the underserved population are met.

In this model, patients who may not otherwise have access to a dermatologist are able to receive individualized treatment plans and patient education for a broad array of dermatologic diagnoses. We have treated approximately 320 patients over eight years with diagnoses including psoriasis, verrucous carcinoma, lupus, vitiligo, hidradenitis suppurativa, eczema, keratoacanthoma, lichen planus, and sexually transmitted infections. By leveraging institutional resources and collaborating with local pharmacies, patients benefit from access to low-cost prescription drugs. In our diverse patient population with various primary languages, language barriers are overcome through the use of video and telephonic translation services. During the COVID-19 patient care restrictions, the providers at SHHC have discussed and coordinated patient care with the dermatology service team using teledermatology.

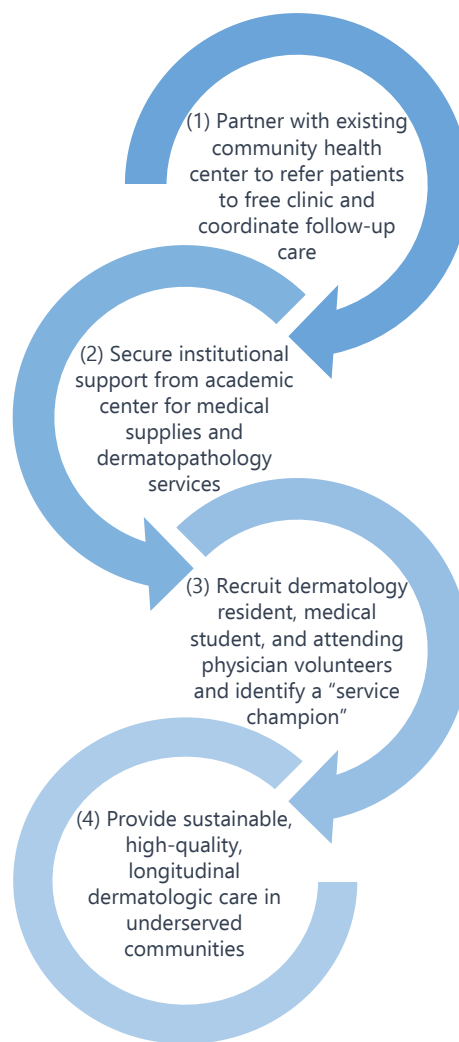
Dermatology relies heavily on visual diagnosis and is a procedural specialty that requires the expertise of personnel that have been trained in dermatology. The SDU promotes bi-directional provider education between SHHC primary care providers and dermatology trainees, resulting in increased patient support. A similar initiative of training community health workers and mid-level providers to provide free skin screenings has been shown to be successful in alleviating the burden of skin disease in a rural Kenyan community.⁸

To evaluate our service-learning model, we distributed a ten-question survey consisting of one multiple-choice, one open-ended, three Likert scale, and five yes/no-questions to dermatology residents who voluntarily participated in the SDU. Nine out of 18 residents completed the survey. Eighty-eight percent (n=8) of the respondents reported that their involvement with the SDU increased their awareness of health disparities and social factors impacting dermatologic care and their participation encouraged them to be more involved in community service throughout their careers.

These findings are well supported in the literature, as dermatology residency programs that integrate service for the underserved into their program goals are three times more successful in graduating residents who practice in underserved

communities.⁹ Thereby, academic-community partnerships are efficacious in fostering interest in working with underserved communities (*Figure 1*). In this service-learning model, we address the unique dermatologic needs of patients in marginalized communities and create a rewarding training environment for medical students and dermatology residents to learn about barriers to equitable care in underserved communities.

Figure 1. Sustainable Model of Academic-Community Partnerships Implemented by a Dermatology Residency Training Program to Promote Skin Health Equity.



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