

Research Letter

Bridging the Gap: Patient Perspectives on Access to Dermatologic Care in a Student-Run Free Clinic in Puerto Rico

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Abstract: Underserved communities face persistent barriers to dermatologic care, yet little is known about their perceptions of barriers to access, knowledge gaps, and motivations to seek care. We conducted a two-day student-run free clinic (SRFC) in Puerto Rico, providing free dermatologic services and administering a Spanish-language questionnaire to assess patient demographics, sun protection behaviors, barriers to care, and perceived impact of the clinic. Of 350 patients, 267 (76.3%) completed the survey. The cohort was predominantly female (91.4%) and Hispanic (97.8%), with 72.7% reporting a dermatologic condition, but over half (51.3%) having never seen a dermatologist. Common barriers included difficulty obtaining appointments (42.5%) and lack of self-perceived need (38.8%). Only 6.4% felt very informed about skin cancer, and 26.6% reported never practicing sun protection. Twelve biopsies revealed both benign and malignant diagnoses, including mammary Paget’s and melanoma in situ. Patients who self-identified as informed about skin cancer reported more frequent use of sun protection and greater engagement in sun-avoidant behaviors. Most participants cited the clinic’s no-cost services as a major factor improving healthcare access. Our findings highlight the dual burden of high dermatologic disease prevalence and limited access to specialty care in Puerto Rico, exacerbated by a physician shortage and socioeconomic barriers. SRFCs can help reduce dermatologic workforce burnout by supplementing clinical capacity, allowing dermatologists to focus on complex cases while medical students assist with triage, education, and basic care delivery. Incorporating medical students in dermatologic outreach may amplify impact by expanding services capacity and promoting awareness and education in underserved populations.

Keywords: Dermatology; Student Run Free Clinic; Health Disparities; Community Outreach

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1. Research Letter

Student-run free clinics (SRFC) provide free healthcare to underserved communities. They have become increasingly common, with more than 75% of medical schools in the United States participating in similar efforts [1]. Despite documented dermatologic health disparities, defined as differences in skin disease burden, access to care, or outcomes tied to social or economic disadvantage, underinsured individuals often experience greater difficulty accessing dermatologic services and may go years without evaluation of skin conditions [1]. Although existing data underscore the disparity in dermatologic care, little is known about why underserved patients perceive dermatologic services as inaccessible, what knowledge gaps they may have regarding skin cancer and sun protection, or what motivates them to seek dermatologic services. Understanding these patient-reported factors is essential for tailoring outreach, education, and resource allocation in SRFC. The objective of this study was to evaluate patient-reported barriers to dermatologic care,

assess knowledge and behaviors related to sun protection and skin cancer, and describe the population served by a dermatology SRFC in Puerto Rico.

We conducted a two-day SRFC at Coliseito Pedrín Zorrilla, a community venue in San Juan converted into a temporary clinic with multiple exam areas. The event was staffed by volunteer dermatologists, medical students, and undergraduate students. The clinic offered free dermatologic services including screening, treatment, biopsies, and referrals. Medical students (MS) volunteers were trained in dermatologic triage, with a focus on differentiating clinical conditions from cosmetic concerns. Patients with clinical concerns were evaluated by dermatologists, with biopsies performed as indicated, whereas patients with cosmetic concerns or nonspecific requests were provided with educational resources and dermatology referrals. To explore the barriers to dermatologic care and characterize the population served by our SRFC, we administered a non-validated 11-item structured questionnaire, developed in Spanish for this study (Appendix A), with some items allowing multiple responses. Participation was voluntary and not required to receive care. The questionnaire collected information on demographics, sun protection behaviors, dermatologic history, barriers to accessing dermatologic care, reasons for attending the clinic, and perceived impact of the clinic on healthcare access. Data analysis was limited to descriptive statistics. Through this assessment, we aimed to provide a picture of the dermatologic needs, knowledge gaps, and barriers experienced by this Puerto Rican community.

Of the 350 patients who attended the SRFC, 267 (76.3%) completed the survey. The mean age was 40 years, and 91.4% were female. Most participants (97.8%) identified as Hispanic or Latino, 0.7% as non-Hispanic or Latino, and 0.4% were unsure. Regarding race, 56.9% identified as White, 23.6% as Black or African American, 11.6% as Other, and 4.1% as Indigenous or Native American. Most participants (72.7%) reported a history of dermatologic conditions (Figure 1); however, 51.3% had never seen a dermatologist. Among participants without prior dermatologic visits, the most commonly reported barriers were difficulty obtaining an appointment (42.5%), lack of perceived need (38.8%), and long wait times to schedule appointments (18.7%). Sunburn history, sun protection behaviors, and skin cancer knowledge are summarized in Table 1. Notably, only 6.4% described themselves as very informed about skin cancer, and 26.6% reported never using sun protective measures during the week. Most (73.8%) reported experiencing at least one severe sunburn during their life. Table 2 summarizes patient-reported barriers to accessing dermatologic care, reasons for seeking care at the SRFC, and perceptions of how the clinic impacted their access to healthcare. Twelve biopsies were performed, revealing both benign and malignant diagnoses. The most common findings included basal cell carcinoma (n=3) and dysplastic nevus with moderate atypia (n=2), along with single cases of melanoma in situ, invasive mammary carcinoma with pagetoid epidermal involvement, lichen planus-like keratosis, solar lentigo, compound melanocytic nevus, angioliomyoma, and ruptured epidermal inclusion cyst. We conducted a sub-analysis to compare participants based on their self-reported skin cancer knowledge. Patients who identified as informed or very informed (n=117) were categorized as the "informed" group, while those who reported little or no knowledge (n=150) were categorized as the "non-informed" group. Notably, informed participants demonstrated greater engagement in sun protective behaviors. Regular sun protection use more than three times per week was reported by 45% of informed participants compared to 25% of uninformed participants, whereas never using sun protection was reported by 15% and 35%, respectively. Sunscreen was the most common method in both groups, used by 71% of informed participants and 50% of uninformed participants. Avoidance of sun exposure was also more common among informed participants, reported by 38% compared with 22% of uninformed participants. These findings are consistent with previous studies conducted in the Puerto Rican population, where significantly higher levels of sun-protective behaviors were observed among individuals with greater skin cancer knowledge [2]. Remarkably, 40% of the non-informed group reported using no sun protection, compared to 17% of the informed group. This study is limited by a small sample size and self-reported data, which may introduce bias and limit generalizability to the broader Puerto Rican population. The underrepresentation of men may reflect gender differences in healthcare utilization, with men less likely to seek preventive and specialty care [3].

Our findings provide new insights into the barriers Puerto Ricans face in accessing dermatologic care. Despite most participants reporting a history of dermatologic conditions, most patients had never seen a dermatologist due to long wait times and limited availability. Like the broader U.S., Puerto Rico faces a physician shortage, with just 9,000 doctors serving 3.2 million

residents, barely surpassing the WHO’s minimum recommended provider-to-population ratio, amid a trend of physician workforce decline on the island over the past decades [4]. The combination of high rates of dermatologic disease and limited access to care raises concerns about potential underdiagnosis, delayed treatment, and poorer health outcomes for patients on the island. Most patients cited the free services of the SRFC as a key factor in improving their access to dermatologic care, underscoring the island’s socioeconomic challenges, where over half the population lives below the poverty line and nearly 50% are enrolled in Medicaid, factors associated with longer wait times and reduced access to specialty care [5]. Our findings suggest the level of knowledge about skin cancer plays a central role in shaping sun-protective behaviors, which raises concerns, as most of our cohort was not well informed. This is consistent with literature showing that lower levels of sun protection knowledge are associated with higher sun exposure and an increased risk of developing skin cancer [3]. These findings highlight the critical role that SRFCs focused on dermatologic care can play in expanding access to services in Puerto Rico, particularly for underserved populations. Besides improving access, the involvement of MS may ease the burden placed on dermatologists, who face high patient volumes due to the ongoing physician shortage on the island. MS can also contribute meaningfully to public education efforts, promoting greater awareness and prevention of skin conditions. Ultimately, SRFCs may improve dermatologic access and positively impact patient outcomes across the island.

Table 1. Severe Sunburn History, Sun Protection Behaviors, and Skin Cancer Knowledge.

Severe sunburn history	N (%)
1-2	102 (38.2)
Never	70 (26.2)
≥3	40 (16)
Sun protection behaviors	N (%)
Type	
Sunscreen SPF ≥30	158 (59.2)
No sun protection	80 (30)
Hats	79 (29.6)
Avoid sun exposure between 10am and 4pm	28 (10.5)
Sun-protective clothing with UPF	28 (10.5)
Frequency	
>3 times per week	90 (33.7)
Never used sun protection	71 (26.6)
2-3 times per week	52 (19.5)
<1 time per week	48 (18)

Skin cancer knowledge	N (%)
Little informed	115 (43.3)
Informed	100 (37.5)
Not informed	31 (11.6)
Very informed	17 (6.4)

Table 1. Participant history of severe sunburn, sun protection behaviors, and skin cancer knowledge. Data are presented as number and percentage of respondents. Severe sunburn history is categorized as never, 1–2 episodes, or ≥ 3 episodes. Sun protection behaviors are detailed by type (e.g., sunscreen use, hats, protective clothing, avoidance of midday sun) and frequency of use. Skin cancer knowledge is self-rated as very informed, informed, little informed, or not informed. Percentages may not total 100% due to multiple responses.

Table 2. Patient-Reported Barriers, Motivations, and Impact of Enlace Dermatology Clinic.

Barriers to Accessing Care	N (%)
Extended wait times for appointments	118 (44.2)
Limited available dermatologists	79 (29.6)
High cost of consultation	67 (25.1)
High cost of treatment	47 (17.6)
Lack of insurance coverage	47 (17.6)
Transportation issues	4 (1.5)
No difficulties	41 (15.4)
Reason for Attending Enlace Clinic	N (%)
Routine skin check	176 (65.9)
Skincare recommendations	107 (40.1)
Evaluation of new/concerning lesions	95 (35.6)
Second opinion	76 (28.5)
Skin cancer prevention counseling	52 (19.5)
Cosmetic dermatologic consultation	45 (16.9)
Medication prescriptions/renewals	42 (15.7)
Follow-up of previous procedure	9 (3.4)
Referral to another specialist	6 (2.2)
Other reasons	26 (9.7)

Patient-Reported Benefits and Impact of the SRFC on Access to Dermatologic Care	
Improved access to dermatologic services	180 (67.4)
Free-of-charge services	139 (52.1)
Convenient location	111 (41.6)
Convenient timing	105 (39.3)
Access regardless of insurance	90 (33.7)
Quality of care	88 (33.0)
Skincare education/resources	87 (32.6)
Friendly staff	86 (32.2)
Had not yet used clinic services	68 (25.5)
No significant impact on access	18 (6.7)
Multilingual services	16 (6.0)

Table 2. Patient-reported barriers to accessing dermatologic care, reasons for attending the Enlace Clinic, and perceived benefits and impact of the Student-Run Free Clinic (SRFC) on access to dermatologic services. Data are presented as number and percentage of respondents. Barriers include cost, lack of insurance, transportation issues, and limited appointment availability. Reasons for attending the clinic reflect patient motivations, such as affordability and quality of care. Reported benefits and impact highlight improvements in access, reduced wait times, and enhanced continuity of dermatologic care. Percentages may not total 100% due to multiple responses.

Figure 1. Dermatologic History

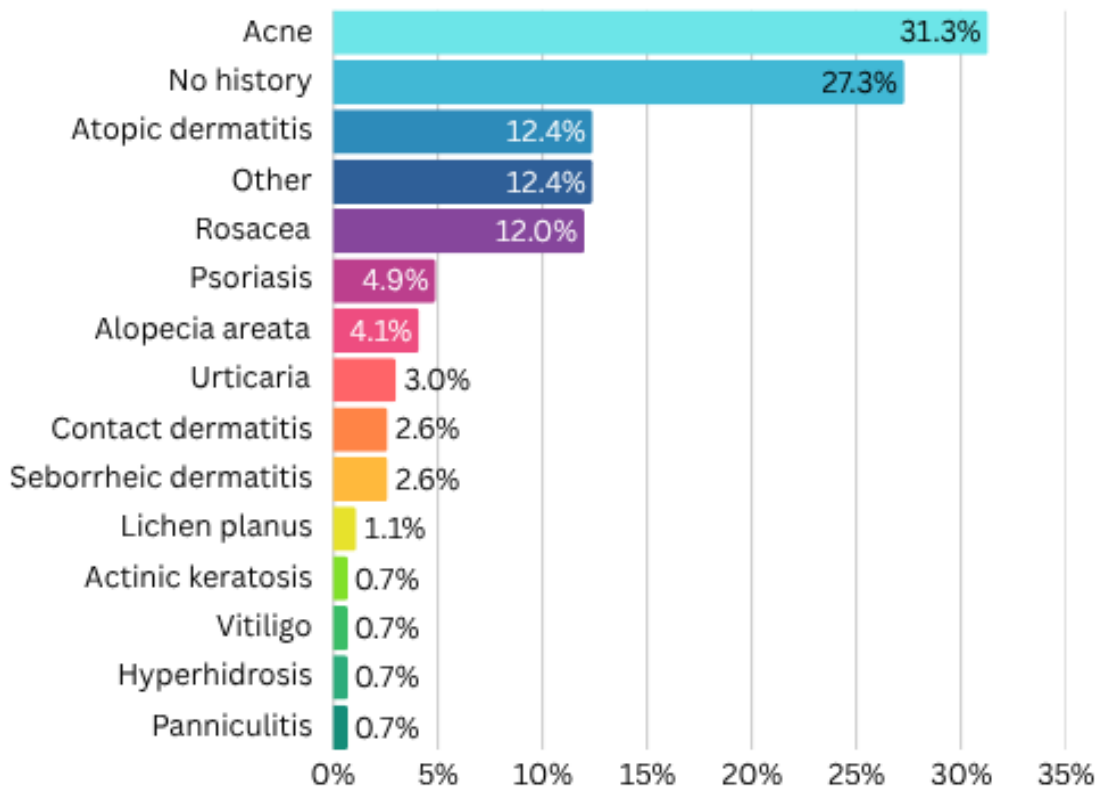


Figure 1. Distribution of self-reported dermatologic conditions among participants. Acne (31.3%) and no history (27.3%) were most common, followed by atopic dermatitis (12.4%), other conditions (12.4%), and rosacea (12.0%). Less frequent conditions included psoriasis, alopecia areata, urticaria, contact dermatitis, seborrheic dermatitis, and rare disorders (<2%). Percentages may exceed 100% due to multiple responses.

Supplementary Materials: To explore the barriers to dermatologic care and characterize the population served by our SRFC, we administered a non-validated 11-item structured questionnaire in Spanish (**Appendix A**).

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Data Availability Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

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