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ARTS, HUMANITIES AND CONTEMPORARY SOCIAL ISSUES IN PEDIATRIC DERMATOLOGY

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Integrating dermatology services into a social pediatrics network: 8 years of experience in the RICHER (Responsive, Interdisciplinary/Intersectoral, Child/Community, Health, Education and Research) program

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Abstract

Social pediatric initiatives aim to improve health outcomes for vulnerable children by working in the community to empower families, to enhance protective factors that mitigate adverse childhood experiences (ACEs), and to deliver place-based health care. In 2012, pediatric dermatology was added as a component of the Responsive, Interdisciplinary Intersectoral Child and Community Health Education and Research (RICHER) social pediatric program in Vancouver, BC. We share our experience with inclusion of pediatric dermatology in a well-established social pediatric program as well as lessons we have learned in the first 8 years of our partnership. Partnership, bridging trust, knowledge sharing, empowerment, consistency, and flexibility were found to be central elements in the success of this endeavor.

KEYWORDS
adverse childhood experiences, delivery of health care, dermatology, health outcomes, pediatrics, protective factors

1 | INTRODUCTION

A growing body of evidence points to the profound and lasting impact that adverse childhood experiences (ACEs) and socioeconomic determinants have on health.[1-3] It is estimated that only 25% of health outcomes are determined by health care while 50% are influenced by socioeconomic factors.[4] As research into the long-lasting impact of ACEs on health has demonstrated, much of the influence of poverty and socioeconomic status occurs during early childhood.

Despite government promises to end child poverty by 2000, according to 2019 report cards, an estimated 1.35 million children in Canada and 19.1% in British Columbia live in poverty, with overrepresentation of Indigenous children, new immigrant children, children in visible or racialized minority groups, and children with disabilities who all have higher poverty rates.[5,6]Social pediatrics is a model of care that is grounded in the knowledge that it is possible to foster protective factors that mitigate the impact of ACEs.[7,8,9] It "is an approach to child health that focuses on the child, in illness and in health, within the context of their society, environment, school, and family"[10] and provides care for the whole child with integration into local community services.[1,11]

2 | PROGRAM STRUCTURE

The social pediatric program RICHER (Responsive, Interdisciplinary Intersectoral Child and Community Health Education and Research)

was created in Vancouver, British Columbia (BC) in 2006, serving a vibrant inner-city community with approximately 4000 children.[4] RICHER works to connect with and support socially isolated and marginalized families living in poverty to provide health care, coordinate social services, and improve health outcomes. A weekly RICHER community round table brings together representatives from a variety of community organizations to discuss pressing health and social issues in the neighborhood. Primary care is provided by a team of 4 nurse practitioners who work in partnership with community service providers and specialized pediatric physicians. Clinics are imbedded into the community, located in designated spaces in the community center, schools, and a townhouse within the social housing complex (Figure 1).

Pediatric dermatology services were integrated into the RICHER program in 2012 in response to the frequency of dermatology concerns among the families and to address some of the disparities in dermatology clinic utilization and health outcomes known to exist in dermatology.[12,13] A dermatologist (WR) from BC Children's Hospital (BCCH) began to attend the community roundtable discussions, hold monthly or bimonthly dermatology clinics in the community, provide teleconsultations for nurse practitioners, intermittently participate in evening activities, and offer educational programming and community advocacy.

3 | PROGRAM REVIEW

Many of the children seen through the RICHER program are made vulnerable by systemic discrimination associated with circumstances such as family poverty, immigration, language barrier, racism, and low social status. An early survey of parents who participated in RICHER programs in 2012 found that 23.3% were white, 32.6% were Chinese, 29.1% were Aboriginal (First Nations/Metis), and 15.1% responded with another race/ethnicity (Korean, Latino, Filipino, African, and mixed race/ethnicity). Over half were single-parent households, and half reported the highest level of education was grade 12 or lower. Half of respondents were immigrants. The majority of household incomes were well below the poverty line with 25.6% reporting an annual income of <$10 000 CAD and 40.7% reporting income of $10 000-30 000 CAD.[11]

With approval from the University of British Columbia Children's and Women's Ethics Board, we performed a descriptive, retrospective chart review of patients from the RICHER dermatology clinic from February 2012 to February 2020 to learn more about the patients who had been served by the clinic. During this 8-year period, 125 pediatric dermatology clinics with 338 total patient visits were scheduled (Figure 2). On average, 2.7 patients were booked for each clinic with a range of 1-7 patients. Clinics were scheduled for 90 minutes and were canceled if there were no patients scheduled. 155 individual patients (81 females and 74 males) were seen in the RICHER pediatric dermatology clinic. The median age of patients was 6 years with a range from 4 months to 50 years. Most referrals came from within the RICHER program; those that came from external sources often came from clinicians in partner organizations. Family members were often seen together; 49 of the 155 patients (28.3%) were seen at the same time as a family member at one of their visits (Table 1). Atopic dermatitis was the most frequent reason for referral (Figure 3).

FIGURE 1 Several team members in front of the RICHER townhouse in the Strathcona neighborhood of Vancouver, BC

3.1 | Lessons

In their review of the fundamental tenets that lead to a successful social pediatric initiative, Tyler et al outlined 4 “demi-regularities” or semi-predictable patterns that could be linked to explaining how social pediatric initiatives achieve their outcomes.[14]Each of these 4 patterns has proven to be an important component of our successful partnership.

3.1.1 | Horizontal partnerships

Shared values of providing patient- and community-centered care are foundational to the success of a program. The RICHER structure is non-hierarchical. Overlapping skills allow for information sharing. Families, community partners, primary care providers, and specialists all play a unique and equally valuable role as they work together for the betterment of a child's health and life experience. The community roundtable provides a social incubator through which broad concerns from the neighborhood are brought to the group and a collective response crafted. For example, when several teachers in the community noticed an increasing number of children falling asleep in class and suspected bed bugs were the culprit, the concern was brought to the community roundtable. The group was able to respond with advocacy for increased surveillance, testing, and mitigation for bed bugs in the housing complex. Through the process, we learned how a bed bug mitigation strategy worked for a large social housing complex and the challenges faced by families trying to cope with infestation and by the housing board.

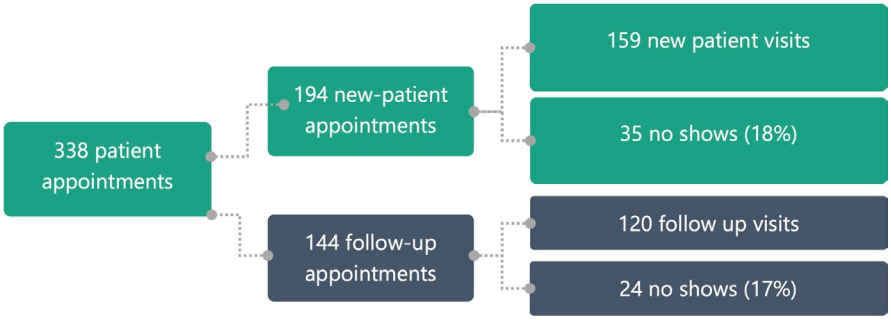

FIGURE 2 Visit characteristics and no-show rates for RICHER dermatology appointment bookings 2012-2020

TABLE 1 Characteristics of 155 patients seen in RICHER dermatology clinic

Gender	
Male	47.7% (74)
Female	52.3% (81)
Age group (y)	
0-1	9.6% (15)
1-5	36.1% (56)
6-10	23.8% (37)
11-15	14.2% (22)
16+	16.1% (25)
Source of Referral (including 4 patients re-referred for a new problem)	
MD inside RICHER	15.7% (25)
MD outside RICHER	16.4% (26)
NP inside RICHER	49.6% (79)
NP outside RICHER	1.9% (3)
Referred by Dermatology at BCCH	4.4% (7)
Unknown or not referred	11.9% (19)

Note: Patient demographics for 155 patients seen and source of referral for 159 new patient referrals to RICHER dermatology clinic.

3.1.2 | Bridging trust

The best care provided through a social pediatric network is thoughtfully linked into trusted organizations and community groups. As has been evident during the COVID-19 pandemic, mistrust of the medical community is common among people from communities who have experienced exploitation or judgment by the medical establishment.[15]Trust and open communication are strengthened by integrating services into accepted community groups such as through holding clinics at a daycare or in a community center. In our experiences with dermatology as a component of a social pediatrics program, this bridging of trust is crucial, bidirectional and one of the key additions of dermatology in this setting.

The inclusion of dermatology services serves to introduce to and helps to establish community trust in the larger RICHER program. Often families have presented to one of our inner-city school clinics with a skin concern or condition that needed to be addressed. Because the nurse practitioner could refer or consult with dermatology, they have been able to get the families' immediate needs met, gain their trust, and begin to build a therapeutic relationship with the family in order to address the often complex physical, developmental, and social needs of the family. In our experience, skin conditions have also been found to be of great importance to families who worry that they might face judgment or accusations of neglect secondary to visible skin conditions. Education provided to primary care providers about skin signs of abuse and skin conditions that can mimic abuse has allowed them to support families when well-meaning bystanders misinterpreted conditions such as post-inflammatory hyperpigmentation or dermal melanocytosis as abuse.

Trust built by the primary care providers and community partners has also allowed the dermatology team to more readily connect with families. Patients were often greeted by their nurse practitioner who introduced them to the dermatology team, thus demonstrating the collaborative care model. The baseline trust that had been fostered opened the door for the dermatologist to see patients who would not otherwise have attended clinic such as through making house-calls, providing care to older teens who have aged out of the pediatric system, and assessing some uninsured parents who were having difficulty accessing dermatology services elsewhere, but who trusted that we could help provide the care they needed.

3.1.3 | Knowledge support

Learning and education are foundational to successful social pediatric initiatives. Again, in this model the learning and education flow in many directions are not hierarchical. We found that common dermatology conditions and skin infections/infestations were the most frequently seen, so educational efforts were directed at diagnosis and management of these conditions in the context of complex social situations. Didactic educational sessions for nurse practitioners and community lectures about skin health were provided. Additionally, junior pediatric residents on their mandatory social pediatric rotation gained an introduction to pediatric dermatology. Laminated cards modeled on the American Academy of Dermatology Skin Disease Education Cards were produced and distributed to all affiliated clinics as well as to First Nations (Indigenous Peoples) Health Authority clinics throughout the province. Relationships formed between the dermatologist, nurse practitioners, and pediatricians have also led to informal opportunities for knowledge sharing and

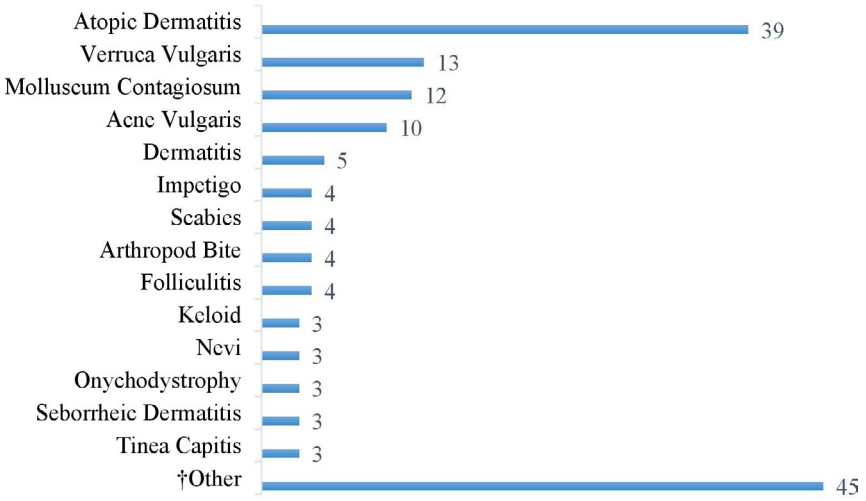

FIGURE 3 Diagnoses most frequently recorded at new patient encounters. †Diagnoses noted in only 1 or 2 new patient encounters: abscess, alopecia areata, angioedema, aplasia cutis congenita, autosomal recessive congenital ichthyosis, blisters, café au lait macules, constricted ear deformity, cyst, dactylitis, diaper dermatitis, epidermal nevus, exanthem, venous malformation, foreign body, hidradenitis suppurativa, hyperpigmentation, juvenile xanthogranuloma, keratosis pilaris, lichen striatus, mastocytoma, normal skin, paronychia, perioral dermatitis, pityriasis alba, post-inflammatory hyperpigmentation, post-inflammatory hypopigmentation, prurigo nodularis, pseudofolliculitis barbae, salmon patch, tinea manuum, vitiligo

improved patient care through an open door for questions and real-time case discussion.

At the same time, the dermatologist has learned from families, primary care providers, and the community about the challenges their patients face outside of the confines of the medical visit, which allowed for the development of improved patient care plans and more sensitive patient interactions. Dermatology residents have had the opportunity to experience place-based, social pediatrics care.

3.1.4 | Empowerment

A successful social pediatric initiative empowers patients and communities to become self-reliant and resilient. A 2012 survey of participants in the RICHER program found that communication that was compassionate, respectful, and clear was very important to families.[11] Empowering families to manage their skin problems at home is central to every dermatology visit. When the bed bug outbreak occurred, evening programs were arranged to help guide families through the process and resources were made available to help with mitigation, empowering them to respond effectively to the situation.

To be successful, dermatologists interested in pursuing equity and social justice work also need to be empowered by their institutions for developing different models of care appropriate for their particular community. Low patient volumes, slower clinic visits, and high no-show rates are expected in this context. All RICHER providers are paid on salary or through service contract for their work and thus are freed from the pressures of fee-for-service billing. In many jurisdictions, volunteer work by students and their supervising faculty is relied upon for staffing community outreach clinics.[16] Such models have proven successful in reaching vulnerable populations, but, given their volunteer nature, may lack sustainability and continuity of providers so important to fostering trust. Recognition of the long-term impact of investing in holistic child health by funding institutions goes a long way toward making a social pediatrics model of care financially feasible and sustainable.

3.2 | Consistency and flexibility

In addition to these four semi-predictable patterns identified by Tyler et al, we also found consistency and flexibility to be important components to the success of our program. In the first few years, the dermatologist attended the community roundtable before each monthly clinic. This was an effective way to get to know team members and understand the culture of the program, though eventually, we found we could be more selective with our attendance and attended only when relevant issues were brought to the table. Initially, the dermatology clinics were conducted in a small clinic room above a community daycare, which proved to be quite isolated and did not provide consistent interaction with the nurse practitioners. Moving into the main clinic space where we were able to see other providers, each month significantly strengthened our partnership. We also found that clinics were best held at least monthly and that missed visits led to diminished connection.

Responding to community needs at flexible times and places as well as in innovative ways was very helpful. Some months we attended an evening family program when a child referred to us were known to be coming. Several children were seen at their daycare when no one was available to bring them to clinic. When the uninsured father of one of our patients presented with a changing nevus, we were able to secure funding from a church to cover the cost of dermatopathology review of his biopsy specimen. Some services such as skin biopsies, liquid

nitrogen, and intralesional injections are not available at the clinic and must be arranged in advance or a creative solution found to prevent the need to rebook patients. For example, since there is no microscope available, we found that cytology spray fixative and a glass slide from the women's health room could be utilized to fix our scabies preparations for later review.

4 | NEXT STEPS

Social pediatric initiatives are, by definition, place-based. Our next steps include working to support this model of care in other communities. We hope to engage dermatology residents more fully in our program to teach them that integration of dermatology in a social pediatrics care model is possible. Finally, we are beginning to formalize the research component of RICHER in order to investigate the impact of a social pediatric program on longer term health outcomes and to further explore the unique role that dermatology plays within a social pediatrics initiative.

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We would like to acknowledge that this clinic is located in the traditional and unceded territory of the Coast Salish Peoples.

CONFLICT OF INTEREST

No conflicts of interest related to this publication. Dr Rehmus has written for the Merck Manual, spoken at a seminar sponsored by Pfizer, and served on an advisory board for Leo, AbbVie, Sanofi-Genzyme, and Pfizer.

DATA AVAILABILITY STATEMENT

Data available on request due to privacy/ethical restrictions The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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