BRIEF COMMUNICATIONS

On the Pediatric Oral Health Therapist: Lessons from Canada

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Abstract

Objectives: *To review the development of dental therapy in Canada.* ***Methods:*** *Historical review.* ***Results:*** *Over its 35-year history in Canada, this model of service delivery experienced a period of great success, but has since degraded, not fulfilling its potential.* ***Conclusions:*** *To ensure the success of the paediatric oral health therapist, US policy leaders will need to mitigate the challenges that degraded the viability of this form of service provision in Canada.*

Key Words: dental nurses, dental therapists, dental care delivery, indigenous health services

Introduction

Canada experiences similar disparities in oral health and access to care as the United States (1). The tragic case of 12-year-old Deamonte Driver is echoed here by Moses Han, a 45-year-old Korean immigrant recently blinded by a tooth abscess; he was too embarrassed to tell his dentist he could not afford treatment (2). These cases make it clear that both countries require new forms of dental care delivery if they are to responsibly act on the health needs of their most vulnerable citizens. The pediatric oral health therapist is currently promoted to do this very thing.

Over the past 2 years, Canadian stakeholders have had the opportunity to follow the pediatric oral health therapist debate in the United States. We have had the opportunity to interact with American public health academics and policymakers regarding this important issue and its timeliness in an environment of worsening disparity. Their enthusiasm for such a provider is apparent, and they often point to Canada's dental therapist as a model of success. Yet this may not be the case. Over its 35-year history, the dental therapy model in Canada has experienced two phases: a period of great success, and a period of decline, where dental therapy has struggled to produce its lauded early outcomes (i.e., improved access and reductions in disease).

If Nash (3,4) is correct, the Canadian experience holds particular significance to the United States, as it is the only country in the Western hemisphere to have such a provider, and because both nations hold specific challenges within indigenous populations. To be sure, Canadian government support for dentistry essentially mirrors the American situation: the public share is similar (4.6 percent, United States versus 5.9 percent, Canada), and public care is generally targeted to socially marginalized groups (in particular children). Professional relations with governments are also closely aligned, meaning that the private profession has tended to discourage significant public involvement in service delivery. In short, we would argue that the similarities far outweigh any difference, making the challenges experienced in Canada that much more relevant to the United States. In effect, for the pediatric oral health therapist to grow beyond its current state of legal restrictions and geographically isolated practice, it will have to safeguard against some of the challenges that have degraded the practice of dental therapy in Canada.

Dental Therapy and Dental Nursing in Canada

Dental nurses and dental therapists represent Canada's first and only effort at an alternative mode of dental care financing and delivery. Beginning in 1971, and extending out of recommendations from the 1964 Royal Commission on Health Services, both the federal government and two provincial governments, Saskatchewan and Manitoba, came to recruit, train, and employ these practitioners. This Royal Commission essentially structured the Canadian health care system, publicly financing hospital and physician care, but not capturing dental care, other than select in-hospital services. Yet the commission did recommend public financing for those on social assistance and the creation of an allied dental health practitioner to treat children. In this regard, similar to current US plans, Canada imported the New Zealand dental nurse model. Trained at the community college level, the dental nurse name was retained in Manitoba, and in Saskatchewan and federal regions, the term dental therapist was used.

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Figure 1
Per capita public dental care expenditures in Canada, 1969/1965/ 1970, 1975-2005 (constant dollars)

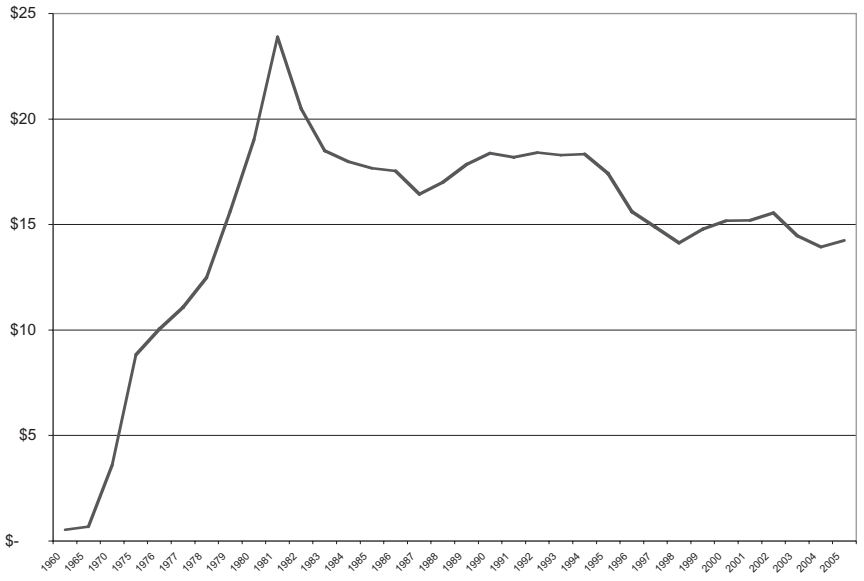

Table 1
Dental Therapy in Canada, 2005

Region/Practice Environment	Number of Dental Therapists
Federal government	62
The territories	27
Saskatchewan government	35
Saskatchewan Aboriginal organizations	31
Saskatchewan private practice	105
Manitoba private practice	23
Total	283

For Canada, dental therapists and nurses were a targeted response for meeting the need in indigenous and rural communities. Both were trained to provide preventive, emergency, and restorative care to children, but dental therapists held an expanded clinical regimen, also providing emergency care to adults. Both providers came to experience great success with federal authority, and with the Saskatchewan Dental Health Plan and the Manitoba Children's Dental Program. Indeed, their effectiveness was well documented early on, putting to rest professional criticisms on productivity and quality (5-9).

For example, taking into account training, employment costs, and the annual value of services provided by dental therapists, one dental therapy position would pay for itself, at minimum, in 2.2 years (5). In fact, a cohort of four consecutive graduating classes paid for themselves in 3.5 years (6). Further, when compared with dentists in the same region, dental therapists had significantly higher mean quality level scores across basic restorative services (7), and when controlling for complexity, such quality continued to favor dental therapists (8). Finally, from 1974 to 1980, the Saskatchewan Dental Health Plan was credited for controlling dental caries among the province's youth by reducing its incidence by approximately 25 percent (9).

At its height, the Saskatchewan Dental Health Plan employed approximately 26 dentists and 400 staff, largely composed of dental therapy/assistant teams, delivering care in 578 school and community clinics (10). Yet by the mid-1980s, because of the increasing fiscal concerns of Canadian governments, public financing for dental care was in significant decline (Figure 1) (11,12). In this environment, private professional challenges took hold, particularly with conservative governments in power at the federal level and in Saskatchewan and Manitoba. As a result, through changes in provincial legislation, public financing was increasingly diverted to the private sector, and over the course of a few years, programming was completely eroded by layoffs and clinic closures, until it was finally canceled.

Saskatchewan actually reabsorbed some staff as dental health educators and maintained the original model in its northern regions. While in Manitoba, some dental nurses retrained to become dental therapists, seeking employment with federal authority or with nongovernmental organizations involved in the community health services sector. Some also retrained as dental hygienists and dentists, and some simply left the public health workforce. In turn, dental therapy numbers have waned to their original numbers, with the 244 in 1980, increasing to 365 by 1990, but returning to 240 by 1999 (12,13).

Today, there are an estimated 283 dental therapists in Canada, working in governmental and nongovernmental environments, both as clinicians and managers (Table 1). Importantly, aside from the federal government and Saskatchewan, territorial governments and Aboriginal organizations now employ dental therapists as well. Territorial governments essentially act as provinces in Canada, yet they are a constitutionally distinct entity, and from the point of view of their activities, are largely dependent on federal fiscal transfers. The territories have a predominantly indigenous population

as well, and link to the political economy of state/indigenous relations within Canada. The details of the latter are not important here, but as in the United States, they can be likened to the American Indian and Alaska Native push toward self-government. Clearly, the invocation of federal and tribal jurisdiction in response to the American professional challenges to the pediatric oral health therapist (14) is one example of the complex relationship now extant between dental therapy and indigenous self-determination.

In Canada, the transfer of the dental therapy training program to an indigenous organization is an example of this complexity. This transfer occurred in 1995, and did not develop positively, with an external review expressing serious concern:

"[I]t was evident that the [transfer] resulted in staff and student discontent and confusion, [it] alienated many dental therapists in the field and was generally harmful to the credibility of [. . .] dental therapy. [Both federal and indigenous authorities] must share the responsibility for the problems. The [transfer] did not involve any 'training period' [. . .]. [Federal] staff did not provide adequate support [and] it was apparent that the expertise [. . .] for training dental therapists was beyond the resources of [the contractor] (15)."

With a weakened training facility, relatively few employers, and with only the Saskatchewan and territorial governments having enabling legislation for its practice, dental therapy came to experience significant boundaries. This had immediate impacts on the services sector, as there were simply not enough dental therapists to meet the need. For example, between 1990 and 1996, treatment intensity (FT/DMFT) decreased for indigenous children aged 6 and 12 years (0.357 to 0.323, $P < 0.05$ and 0.478 to 0.413, $P < 0.01$, respectively), while mean caries scores increased in 6-year-olds (8.2 to 8.7, $P < 0.05$) and stayed the same for 12-year-olds (15). More recently, surveys of Canadian indigenous populations confirm the continued presence of need (16,17).

Meeting such need is also becoming more of a challenge in the context of new Canadian dental professional opinions on dental therapy. Consider that as any profession must, dental therapy continued to define its role within the challenges of a changing marketplace. Many dental therapists sought opportunities within private markets, as their skills with children made them a viable adjunct to private practice (Table 1). While this may be a positive development for the profession of dental therapy and the delivery of dental care in private practice, it points to the newer challenges faced by public stakeholders when addressing issues of dental care for those at the social margin.

What Can Be Learned from the Canadian Experience?

This commentary has reviewed the history of dental therapy/nursing in Canada, highlighting important issues for consideration by American stakeholders in order to safeguard the long-term success of the pediatric oral health therapist. So, exactly what lessons are present? We argue that there are three.

First, as a model of care, policy stakeholders should promote the pediatric oral health therapist in a nonpartisan way, meaning that efforts should be ensured to gain support from all members of the political spectrum. As observed in Canada, there now exist both public and private economic arguments for the presence of this form of service provision. If achievable, such a balanced argument could arguably refocus debates and potentially mitigate the impacts of changing governments. Recall that in Canada, a context of fiscal constraint allowed for the overdetermination of professional pressures on such governments, with subsequent impacts on dental therapy/nursing. To be sure, in the American context, where fiscal concern is just as common, and where private approaches to service delivery are more diverse and integrated, the idea that therapists be involved in private settings may prove beneficial to meeting need, and to diffusing current tensions.

Second, as an institution, the pediatric oral health therapist should be organized in such a way as to be cognizant of indigenous efforts at self-determination, but should not be put at risk by the complexities of such efforts (as they relate to state/indigenous relations). As seen in Canada, dental therapy had to bear the negative impacts of a poorly executed federal and indigenous response to the notion of indigenous control over services. In the United States, while the integration of the pediatric oral health therapist into indigenous health governance is a current standard, this does not mean that the latter should completely encompass the former. In effect, the pediatric oral health therapist should principally be conceived as a primary health care provider, who secondarily, is part of state/indigenous relations and their service delivery milieu. At the very least, this will safeguard the pediatric oral health therapist as a service delivery concept outside of indigenous care, and strengthen the idea of this form of provision in other public service environments.

Third and last, the training of pediatric oral health therapists should be prepared to meet the societal need for them. As noted, the uptake of dental therapists into Canadian private practice is a clear indication that this provider is valuable in different service settings. Yet their graduating numbers were not increased in order to reflect Canada's newest needs, both public and private. Given enough time, need, and competition, US private markets may come to incorporate therapists, so conceiving of such potential is, at the very least, prudent in terms of dental human resources training and planning. For example, will commitments to work in underserviced areas be part of educational loans?

Bearing these considerations in mind, it is clear that the pediatric oral health therapist provides a long-term, sustainable option to responsi-

bly meeting the needs of America's socially marginalized groups.

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