Exploring an Alternative Model for the Delivery of Outreach Dentistry to At-Risk Youth

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Abstract
At-risk youth represent a population of individuals between 15-30 that have a disconnection from future education and/or employment. These individuals have limited access to oral care due to restricted finances. This report examined a novel approach for the delivery of dental care through a collaboration between a community agency and a dental school that was funded by a private insurance company. The two-year program aimed to screen 200 patients and deliver free dentistry limited to extractions, endodontics, periodontics and restorative dentistry. One hundred and twenty-six patients were screened, forty-five patients remained in an active phase of treatment, seventeen patients had their treatments completed and sixty-four patients were deactivated. The total cost of treatment was $31,261.00. The program fell short of its aim but provided oral care to a number of patients, provided an educational experience for dental students and highlighted several challenges and rewards with this alternative model.

Keywords: Oral Health; Community Dentistry; Dental Outreach; At-Risk Youth

Introduction
Although the state of oral health care in Canada has improved significantly over the years, there are some individuals that cannot access basic oral health for the essential treatment of pain and infection [1]. The 2007-09 Canadian Health Measure Survey (CHMS) presented a strong association between age, income, education, dental insurance and the oral health of Canadians [2]. In 2012, cost was reported as the principal barrier to the access of oral health care for low and middle-income households of Ontario residents [3]. According to the Association of Ontario Health Centers (AOHC), 17% or 2.3 millions of Ontario residents cannot afford an examination with either a dentist or dental hygienist [4]. As a result, 61,000 hospital visits and 222,000 visits to primary care physicians occur in Ontario for the resolution of dental pain, infection and other dental emergencies [4]. This translates to a cost of more than 38 million dollars per year to the health care system [4]. Furthermore, approximately 2.26 million school days and 4.15 million working days become lost each year due to poor oral health conditions [5].

Proper oral health care goes beyond the basic alleviation of pain and infection [2,6]. The impact of oral health on general health and the overall quality of life has been shown in numerous studies [5,7]. Facilitating accessibility to oral health care, either through governmental-funded or community outreach programs, has a significant function on improving oral health, total health and an individual’s well-being. At-risk youth represent a population of individuals that have a disconnection from future education and/or employment [8]. Youth Opportunities Unlimited (YOU) is an organization that supports the at-risk youth population from ages 15-30. It represents a partnership with several community agencies to provide guidance and support for youth to reach their true potential. Several services are offered, such as accommodation, food, health support and life skills, with the hope are fostering a greater connectivity of youth for future education and/or employment [9]. This short communication will explore a novel collaboration between YOU, Schulich Dentistry and Green Shield Canada to deliver free dentistry to at-risk youth.

Methods
A grant was submitted to Green Shield Canada for the provision of funds for a two-year partnership to provide dental screening for two hundred at-risk youth patients and limited dentistry free of charge. The expenses included professional & administrative costs, supplies, equipment and dental treatment. The strategy employed several visits to the YOU site for the examination and treatment
planning phase. The delivery of treatment occurred at the Schulich Dental Clinic. The aims of the collaboration were to provide dental screenings and treatment free of charge and to offer Schulich Dentistry students outreach involvement and clinical experience. The collaboration was active from November 1, 2015 to October 31, 2017 and all patients were from the at-risk youth population at YOU in London, Ontario, Canada.

**Results**

One hundred and twenty-six patients were screened, forty-five patients remained in an active phase of treatment, seventeen patients had their treatments completed and sixty-four patients were deactivated. The total cost of treatment was $312,610.00. The spectrum of treatment delivered included: examinations, radiographs, extractions, periodontics, restorative dentistry, endodontics and removable dentures. Several patients were too complex for the dental school and were referred to other clinicians.

**Discussion**

The program fell short of its aim but delivered oral care to a number of patients and provided an educational experience for dental students. The cost of treatment delivered was reported based on the Schulich fee guide, which is a 40% reduced fee as compared to the provincial fee guide. Many patients presented with complex medical histories and technically difficult cases. These patients were referred to the General Practice Residents and the London Health Sciences Centre and to Interface, a private oral surgery facility in London, Ontario. Unfortunately, the costs associated with these referrals has not been reported yet but would significantly increase the total cost of treatment delivered. There were many challenges encountered during this pilot project. The most crippling was the time required to approve the agreement, which took 16 months of reviewing and amending the details.

Once signed, there was minimal time (6 months) remaining for the agreement. Attempts were made to remove barriers to access by providing off-site examinations and transportation to the dental school. However, there was still a very significant percentage for no-show patients. The typical no-show value was approximately 50%, which affected the success of the program. Administrative support for the program was also very limited. There were several rewards of the program. A collaborative partnership was created with Schulich Dentistry, YOU and Green Shield Canada. This novel model demonstrated that there can be alternative approaches for the provision of dental care to at-risk youth. Schulich dental students gained awareness of at-risk youth and were involved with the clinical dental experience through community-based learning. At-risk youth benefitted from free dental examinations and treatment, which alleviated dental pain and infection, enhanced their esthetics and function and improved their oral health, general health and overall well-being.

**Conclusion**

This report explored an alternative model for the delivery of at-risk youth through outreach dentistry. Although the screening aim was not satisfied, there were numerous successes achieved from the collaboration. As more and more individuals lack access to basic oral health care, alternative approaches for the delivery of dentistry must be considered to alleviate disparities. Other collaborations are encouraged, for the improvement of oral health, total health and well-being.

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**References**

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