McGill | Faculty of Dental Medicine and Oral Health Sciences | Faculté de médecine dentaire et des sciences de la santé orale

DMD Research Projects

2023-10

Utilisation des services d'oncologie psychosociale par les patients atteints de cancer oral selon leur profil linguistique minoritaire dans la région de Montréal

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Dr. Amal Idrissi Janati

Project Description:

Plusieurs patients atteints de cancer oral éprouvent une détresse psychosociale au cours de leur trajectoire de soins, et même après. Ces dernières années, des services d'oncologie psychosociale (SOP) ont été implantés dans de nombreux centres hospitaliers pour soutenir les patients atteints de cancer et ayant des besoins en soutien émotionnel, psychologique ou social. L'utilisation des SOP par les patients avec cancer oral n'a pas encore été documentée, ce qui entrave la surveillance et l'amélioration continue des soins. Au Québec, la pénurie du personnel de soins, les barrières persistantes au dépistage de la détresse et la stigmatisation de l'usage de services de santé mentale peuvent influencer l'utilisation des SOP en oncologie orale, surtout chez la minorité anglophone où les difficultés d'accès aux services de santé et santé mentale ont été rapportées. Notre objectif est de générer des données de surveillance sur l'utilisation des SOP par les patients et survivants du cancer oral, selon leur statut linguistique officiel au Québec. Ainsi, nous menons une étude rétrospective basée sur les données réelles de patients avec cancer oral, suivis dans l'un des principaux centres hospitaliers de Montréal. En plus des données sociodémographiques et cliniques, les patients francophones et anglophones seront comparés sur le taux de référence vers le département d'oncologie psychosociale, le délai et le taux de réponse à ces demandes et le type de SOP reçus. Des analyses seront menées pour explorer les facteurs liés à une éventuelle différence d'utilisation des SOP entre les patients francophones et anglophones. La communication de nos données aux prestataires de soins et décideurs en santé les aidera à revoir leurs politiques et stratégies pour promouvoir la prise en charge globale des patients en oncologie orale tout en s'assurant d'une équité d'accès aux services entre la minorité et la majorité linguistiques.

Student Responsibilities:

Assist with data collection by searching for information in departmental and MUHC electronic medical databases. The task can be performed remotely by the DMD student.

Project location:

OMFS department, Montreal General Hospital

Project length:

September 2023 to January 2025

Building a Network of Dentists Treating Patients with Special Needs in Montreal

Dr. Chantal Czerednikow

Project Description:

People with special needs have a hard time finding dentists in the community to care for their oral health needs. The hospital clinics, such as the McGill Oral Health Clinic for the Neurodivergent Community has a significant wait time for appointments because of the large volume of patients needing care.

This project aims to identify dentists in the community that provide dental services for patients with special needs in Montreal, as a first step in increasing the accessibility of dental services for this population.

The objective behind this project is to develop a reference list of dentists providing dental services for patients with special needs, so that such individuals can chose from the list of clinics to be treated at instead of waiting for months to be seen at the hospital.

Student Responsibilities:

The student would be responsible for making phone calls in French and English to dental clinics in the greater Montreal area. They would also keep track of the information with an excel spreadsheet. They would be asking questions, such as whether or not sedation is available, what types of sedation, whether the dentists treat paediatric, adult or both populations of patients with special needs.

The student would then compile the information into a table or list that can be distributed to patients or posted online as reference.

Project location:

Remote, with possibility to come to Oral Health Clinic for the Neurodivergent Community at the MGH for meetings/discussions

Project length:

6 – 9 months

Patients' satisfaction with Clear Aligner Therapy at McGill Undergraduate Teaching Clinic

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Dr. Julia Cohen-Levy

Project Description:

Background: McGill's undergraduate dental clinic offers clear aligner orthodontic treatment (CAT) delivered by undergraduate students, under the supervision of orthodontist specialists. In the specific setting of the undergraduate clinic, treatments address a series of cases of minimal complexity, selected through a standardized screening process.

Although our faculty has offered CAT for more than 10 years, no satisfaction study has been conducted. It seems important to us, in several aspects:

- Helping identify areas where clinical process improvements could be made in the delivery of orthodontic care with CAT at the clinic;
- Receiving feedback about how supervisor/student/patient relationships are perceived;
- Following stability of orthodontic treatment after the patient is dismissed from the orthodontic clinic. Orthodontic stability embraces several aspects, as continuous growth or persistent dysfunctions might have led to a degree of relapse, but also comprises the adherence to the retention regimen.

Design: This will be a cross-sectional study, aimed to assess patient satisfaction through a questionnaire, offered online (LimeSurvey) by phone, or during their visit to the clinic if they still are in an active retention period. We will evaluate how satisfaction can be related to treatment duration, specific problems (such as the COVID-19 pandemic), or case characteristics. Satisfaction will be measured with the Patient Satisfaction Questionnaire (PSQ), Orthodontic treatment outcome by a validated tool (PAR index) on patient's digital models. We estimate the number of 80 to 100 responses, which is similar to the recent satisfaction survey following Invisalign™ treatment, published by Pacheco-Pereira et coll, in 2018, and performed in Canada (n=81).

Student Responsibilities:

Literature review/Protocol design (already done IRB approved: A08-E39-23B) LimeSurvey tool design (approx. 5 hours), data collection (1 hour during clinic time, total 30 hours), cast analysis (30 hours) data analysis, poster/article edition (TBD).

Project location:

Faculty of Dental Medicine and Oral Sciences, Orthodontic Clinic

Project length:

One year, September 2023-September 2024

Validity of Remote Video Screening with Screenshot Photography in Orthodontics: A Pilot Study

McGill | Faculty of Dental Medicine and Oral Health Sciences | Faculté de médecine dentaire et des sciences de la santé orale

Dr. Julia Cohen-Levy

Project Description:

Background: To our knowledge, no studies have assessed the use of live video telemedicine as a tool for orthodontic screening. The implementation of such remote orthodontic screening service would have several benefits, at the patient, oral health care provider and faculty levels:

- It would help prioritize cases that need more urgent orthodontic care, as it would allow a more efficient selection of cases suitable for treatment by undergraduate dental students.
- At the patient level, it would reduce costs (transportation and parking to the clinic and the need to reserve an entire morning to attend the consultation).
- As remote orthodontic screening does not require a dental chair or advanced dental equipment, it would help optimize resources.

Objectives: This study aims to evaluate the validity and reliability of Remote Orthodontic Screening (ROS), as a test for screening orthodontic patients for our undergraduate clinic. We will compare ROS with the gold standard, Chair-side Orthodontic Screening (COS) in children aged 7-15 years old. As a screening test, we will evaluate its sensitivity, specificity, Positive Predictive Value (PPV) and Negative Predictive Value (NPV). We will also use a satisfaction questionnaire to compare participants' experiences with both modalities.

Patients and Methods: Our goal is to enroll 32 participants (2 per screening session). They would be invited from the list of potential new patients. Bot ROS and COS screenings will be performed on the same day and will follow the same orthodontic screening form (standardized report). For ROS, the participant will be sitting in a closed room (room A) with a research assistant and will be facing a computer with a webcam and Remote live Session (Teams™) with an orthodontist, live-connected from another location (Room B). The intervention will last approximately 20 to 25 minutes; Orthodontist A will ask questions, examine the participant through the webcam, and take screenshot photos. For COS, A standard dental chairside examination (Orthodontist B) will be offered at McGill Faculty of Dental Medicine, as routinely performed. The inter-observer calibration between Orthodontists A and B will be performed prior to the start of the study, on volunteers.

Student Responsibilities:

Literature review/Protocol design (already done and submitted to IRB) enrollment of 32 participants, obtain consent, assist them for ROS, data entry (no data collection), data analysis, poster/article edition.

Project location:

Faculty of Dental Medicine and Oral Sciences, Orthodontic Clinic

Project length:

One year, September 2023-September 2024

Effect of Passive Oral Myofunctional Re-education in pediatric obstructive sleep apnea: A randomized controlled trial

Dr. Julia Cohen-Levy

McGill | Faculty of Dental Medicine and Oral Health Sciences | Faculté de médecine dentaire et des sciences de la santé orale

Project Description:

Paediatric Obstructive Sleep Apnea (OSA) is a multifactorial condition, associated with significant comorbidities, affecting cardiovascular health, cognitive development and quality of life. Its main cause is adenotonsillar hypertrophy, but some co-factors such as obesity, orofacial dysfunctions and craniofacial abnormalities contribute to the severity of symptoms or their persistence after adenotonsillectomy.

Aim: Oral Myofunctional Re-education (OMR) has been shown to reduce the Apnea-Hypopnea index (AHI) of children and can serve as an adjunct to other therapies. The investigator's aim is to evaluate a method of Passive Oral Myofunctional Re-education (POMR), which is potentially less demanding in terms of parental time and active involvement of the child. POMR involves the use of a prefabricated soft oral appliance, which is designed to help position the tongue, lips, and jaw in a way that promotes optimal muscle function.

Methods : The design of the study is a randomized Controlled Trial, enrolling 60 children with significant obstructive sleep apnea and scheduled for adenotonsillectomy, taking place in two pediatric hospitals (Hospital St Justine and McGill's pediatric ENT department). We would enroll 30 participants, who would be examined at our Faculty of Dental Medicine. Symptomatic Children will be randomized into 2 groups: Group 1 (experimental group) would receive a flexible oral appliance, to be worn during quiet activities and sleep, after nasal hygiene measures and Group 2 would be using nasal hygiene alone (control group). The objective assessment of sleep parameters will be performed at home using an ambulatory device, measuring AHI, desaturation index, minimal oxygen saturation, flow limitation, and snoring), before and after therapy, at baseline and after a 3-month interval. An orthodontic and craniofacial assessment, the examination of orofacial functions as well as the quality of life (questionnaire OSA-18) will also be evaluated on participants, before and after therapy.

Student Responsibilities:

Assistance in participant enrollment, communication with participants/parents, obtaining consent, data entry, assistance in clinical examination, data analysis, participation on article or poster.

Project location:

Faculty of Dental Medicine and Oral Sciences, Orthodontic Clinic

Project length:

Two years or more, November 2023 - December 2025