

Transition from acute to chronic painful temporomandibular disorders: Exploratory paths Workshop - Report

PIs: Drs. Ana M. Velly and Gilles Lavigne

February 21, 2020

Collaborators: Drs. Barry Sessle and Brian Cairns

The aim of this workshop was to create a new intersectoral team comprising representatives from Canadian institutions to develop new, feasible research approaches to clarify the underlying mechanisms, biomarkers, and risk factors for painful temporomandibular disorders (TMD), and thereby put in place management strategies to prevent the persistence of chronic orofacial pain.

To better attend this goal, we decided to promote two workshops. The first one held on June 18, 2019 in Vancouver aimed to bring together educators, clinicians, students, as well as researchers to discuss the current state of knowledge and research and consider future research opportunities and directions related to the transition from acute to chronic painful TMD. The speakers and moderators included: Ana Velly, Gilles Lavigne, Barry Sessle, Brian Cairns, Richard Ohrbach, Linda LeResche, Frank Lobbezoo, Malin Ernberg, Eric Schiffman, Thomas List, Jean-Paul Goulet, Peter Svensson, Maria Hudspith, Paul Major, and Chris Peck. Topics below were presented and discussed in the Workshop in Vancouver:

- Clinical significance of orofacial pain, specifically TMD.
- The dilemma of the transition from acute to chronic painful TMD.
- Pathophysiology of TMD;
- The risk factors implicated in the onset and persistence of chronic TMD pain
- TMD Biomarkers
- TMD diagnosis and screening
- Multidisciplinary pain management
- Challenges with the implementation step of research findings into day-to-day clinical practice
- Important knowledge gaps still to be addressed: education, research, clinical practice, knowledge translation – Clinician, patient and student perspectives

This workshop was attended by 74 participants. Most of them were MSc. and Ph.D students, professors and researchers from USA, Canada, Europa (Netherlands, Denmark, UK), Brazil, Japan.

The second workshop was held in Montreal on June 27, 2019 with a specific aim of bringing together educators, clinicians, students, patient representatives as well as researchers from different disciplines from Canada to discuss the current state of knowledge and research, and to consider future research opportunities and directions related to the transition from acute to chronic painful temporomandibular disorders (TMD). The participants included: Ana Velly, Gilles Lavigne, Barry Sessle, Brian Cairns, Alain Moreau, Elham Emani, Paul Allison, Iacopo Cioffi, Massieh Moayedi, Zovinar der Khatchadourian, Paul

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Major and Jean-Paul Goulet. In this workshop, priorities, challenges, opportunities, and funding prospects for the following topics were discussed:

- 1.** Design studies to develop strategies and decision-making paradigms to prevent the transition from acute to chronic orofacial pain.
 - a. Identifying current evidence-based prevention strategies and outcomes;
 - b. Design studies needed to address current knowledge gaps and improve outcomes;
 - c. Address implementation strategies: to patients, clinicians and family members;
 - d. Encourage patients participation;
 - e. Identify funding resources.
- 2.** Design studies to assess risk factors and identify biomarkers to prevent the transition from acute to chronic orofacial pain
 - a. Better-understand the pathophysiology and mechanisms of orofacial pain;
 - b. Identify risk factors for persistent orofacial pain;
 - c. Identify pain biomarkers (e.g. screening, diagnostic and treatment purposes);
 - d. Study recommendations: qualitative and quantitative – mixed studies; engaging patient participation;
 - e. Identify funding resources.
- 3.** Design studies to assess the economic and social impacts of chronic orofacial pain and its prevention.
 - a. Identify the economic and social impacts on the orofacial pain patient;
 - o Currently, no existing evidence-based protocols to assess the economic and social impacts of orofacial pain.
 - b. Highlight the importance of creating support groups;
 - c. Identify financial burden for all patients, particularly; the underprivileged population;

Recent activities

1. NCOHR Oral Facial Pain Working Group

- (i) In 2019, NCOHR Executive and Steering Committee decided to create a new group “Orofacial Pain Working group”. The Chair of this Groups is Dr. Ana Miriam Velly.
- (ii) The aims of this group have been proposed in the Workshop in Montreal (Page 2).
- (iii) This group is composed of 13 participants from: University of Toronto, McGill University, Université de Montreal, and the University of Alberta.

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(iv) We had our first group meeting on December 12, 2019. During the meeting, views and objectives of the Orofacial Pain Working Group were discussed. A brief presentation of what was done in workshops “Transition from Acute to Chronic Temporomandibular disorders: Exploratory Paths Workshops in Vancouver and Montreal” done in Vancouver and Montreal, was provided.

2. Ongoing, and planned outcomes/activities

- (i) Manuscripts. Two manuscripts are being prepared. The first manuscript is a report of the Vancouver and Montreal workshops. The second is prepared by students from various universities in America and Europe highlighting their prospective on orofacial pain education.
- (ii) We will have a second meeting in the upcoming two weeks.