Knowledge Transfer within the Canadian Chiropractic Community. Part 2: Narrowing the Evidence-Practice Gap

Greg Kawchuk, BSc, DC, MSc, PhD
Genevieve Newton, DC, PhD
John Srbely, BSc, DC, PhD
Steven Passmore, Hons BKin, MS, DC, PhD
André Bussières, BSc, DC, FCCS (C), MSc, PhD
Jason W. Busse, DC, PhD
Paul Bruno, BHK, DC, PhD

Commentary

Introduction
This two-part commentary aims to provide clinicians with a basic understanding of knowledge translation (KT), a term that is often used interchangeably with phrases such as knowledge transfer, translational research, knowledge mobilization, and knowledge exchange. Knowledge translation, also known as the science of implementation, is increasingly recognized as a critical element in improving healthcare delivery and aligning the use of research knowledge with clinical practice. The focus of our commentary relates to how these KT processes link with evidence-based chiropractic care.

In Part 1 of this series, we presented an overview of the barriers that impede successful KT in the chiropractic profession. Now in Part 2, we provide an overview of KT strategies followed by a discussion of relevant KT efforts in the Canadian chiropractic community. This discussion will lead to a long-term vision of KT for Canadian chiropractic with suggestions to where KT can be applied or where current efforts can be augmented. The overall goal

1 Professor and Canada Research Chair in Spinal Function, Faculty of Rehabilitation Medicine, University of Alberta
2 Assistant Professor, Department of Human Health and Nutritional Sciences, University of Guelph
3 Assistant Professor and CCRF Chair in Spine Mechanics and Neurophysiology, Human Health and Nutritional Science, University of Guelph
4 Assistant Professor, CCRF Professorship, School of Medical Rehabilitation, Faculty of Medicine, University of Manitoba
5 Assistant Professor (Adjunct), Research Department, New York Chiropractic College
6 Assistant Professor and CCRF Research Chair in Rehabilitation Epidemiology, School of Physical and Occupational Therapy, McGill University
7 Professor, Université du Québec à Trois-Rivières
8 Assistant Professor, Department of Anesthesia, McMaster University, Hamilton, Canada
9 Assistant Professor, Department of Clinical Epidemiology and Biostatistics, McMaster University, Hamilton, Canada
10 Researcher, the Michael G. DeGroote Institute for Pain Research and Care, McMaster University, Hamilton, Canada
11 Assistant Professor and CCRF Research Chair in Neuromusculoskeletal Health, Faculty of Kinesiology and Health Studies, University of Regina

Corresponding author’s contact information:
Email: greg.kawchuk@ualberta.ca
Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, Alberta, T6G 2G4, Canada
Phone: (780) 492-6891

Declaration: The authors have no conflicts of interest to declare regarding this paper or the material described therein. Dr. Kawchuk receives support funding from the Canada Research Chairs program. Drs. Srbely, Passmore, Bussières, and Bruno receive full or partial support funding from the Canadian Chiropractic Research Foundation.

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of this article is to present potential strategies for successful KT implementation in order to reduce the gap between current best evidence and its application in chiropractic practice.

KT Strategies
A broad lexicon of terminology is used to describe various strategies to KT application. In this section, we will present the most commonly used designations which include active and passive strategies, push/pull strategies, and exchange strategies. As well, we will consider several targeted strategies aimed at improving clinical practice outcomes. In all instances, proposed KT activities should be consistent with ethical principles and norms, social values, as well as legal and other regulatory framework. (More at: http://www.cihr-irsc.gc.ca/e/39033.html.)

Passive and Active Strategies
Passive strategies are those that do not require personal interaction with the end user, and include publication of peer-reviewed articles and distribution of clinical practice guidelines (CPGs). Although there are several peer-reviewed journals that publish research evidence relevant to chiropractic, quality can be highly variable and publication in high impact journals does not guarantee high quality. One result of this circumstance is that clinicians can locate journal publications to support almost any type of practice or challenge evidence that conflicts with their personal beliefs. Also, depending on the journal, there may be a long period of time between when knowledge is submitted versus published. Similarly, textbook content can rapidly become out-dated. These points emphasize that passive strategies may be insufficient at creating effective transfer of appropriate knowledge.

In contrast to passive strategies, active strategies are those that involve personal interaction with the end user, and include publication of peer-reviewed articles and distribution of clinical practice guidelines (CPGs). Although there are several peer-reviewed journals that publish research evidence relevant to chiropractic, quality can be highly variable and publication in high impact journals does not guarantee high quality. One result of this circumstance is that clinicians can locate journal publications to support almost any type of practice or challenge evidence that conflicts with their personal beliefs. Also, depending on the journal, there may be a long period of time between when knowledge is submitted versus published. Similarly, textbook content can rapidly become out-dated. These points emphasize that passive strategies may be insufficient at creating effective transfer of appropriate knowledge.

Push / Pull Strategies
Knowledge translation strategies can also be characterized by whether they ‘push’ or ‘pull’ knowledge in the direction of the end user and by whether there is an exchange of knowledge between the end user and the researcher. ‘Push’ strategies (also known as ‘research-push’) include those in which knowledge generation is driven by the researcher toward end users. In contrast, strategies that ‘pull’ research (also known as ‘user-pull’) include those in which end users plan and implement strategies to pull knowledge from sources they identify as helpful in making clinical decisions.

Exchange Strategies
Exchange strategies are those in which the process of knowledge generation includes interaction between the researchers and end users. These strategies are most consistent with the knowledge-to-action cycle described by Graham and colleagues which was presented in Part 1 of this commentary. In the KT cycle, interactions are critical, particularly in the early stages of intervention design which should take into account barriers against adoption of knowledge.

Targeted Strategies
Strategies also vary in terms of their targeted end user. For example, some interventions are targeted at clinicians while others target patients or health organizations (e.g., professional associations). Here, we offer an overview of 12 strategies (or interventions) that target professionals with the aim of improving clinical practice outcomes. Definitions for these strategies were adapted from the Rx For Change database maintained by the Canadian Agency for Drugs and Technologies in Health.

1. Distribution of educational materials: This passive form of disseminating information is well known to clinicians. It refers to published or printed evidence-based recommendations for Clinical Practice Guidelines (CPGs), audio-visual materials, and electronic publications. Given the high prevalence and significant costs associated with back and neck pain, evidence-based CPGs and best evidence synthesis CPGs can be particularly useful where overuse and/or misuse of services exist. These CPGs aim to direct appropriate care based on the best available scientific evidence and broad consensus while promoting efficient use of resources.