

Knowledge Translation of Musculoskeletal Health Research

Despite the considerable amount of money and time that has been invested in health research, relatively little attention or priority has been given to ensuring that the findings of research are translated into improved health care and improved health¹⁻³.

The Canadian Institutes of Health Research (CIHR) has defined knowledge translation as follows: the exchange, synthesis, and ethically sound application of knowledge, within a complex system of interactions among researchers and users, to accelerate the capture of the benefits of research for Canadians through improved health, more effective services and products, and a strengthened health care system.

The CIHR Institute for Musculoskeletal Health and Arthritis (IMHA) has identified knowledge translation as a priority research area. It is essential that important research questions be identified in order to offer potential recommendations that can be used to develop relevant and effective research in the area of knowledge translation³.

CIHR'S INTEREST IN KNOWLEDGE TRANSLATION

The objective of the CIHR in the area of knowledge translation is to excel in the translation of knowledge into improved health for Canadians, more effective services and products, and a strengthened Canadian health care system.

The CIHR's structure of 13 institutes and 4 pillars of health research will lead to a broad, complex knowledge creation agenda. Strategies for accelerating the use of research findings — knowledge translation — must be developed within the context of multiple users of research, each with specific needs and interests. These users include traditional audiences of clinicians and health care providers, policy makers (in health and other sectors), managers, industry, voluntary agencies, patients, and the general public. They also include less commonly identified target groups such as the research community itself, persons living with diseases and conditions, rural communities, school-age children, and others³.

Knowledge translation involves a complex set of interactions between producers and users of new knowledge. Improved application of research findings occurs when health researchers move beyond a reliance on academic publication as a primary mechanism for disseminating results. Instead, more dynamic mechanisms that engage players whose decision-making would be informed by the

research have been shown to increase uptake and application of research. These mechanisms include engaging partners and users of research results in the early stages of developing research strategies, developing relevant and compelling summaries of research findings, encouraging face-to-face interactions between researchers and users of research results, and a host of other strategies^{2,4} (Figures 1 and 2A).

THE COCHRANE COLLABORATION MUSCULOSKELETAL REVIEW GROUP

The Cochrane Musculoskeletal Review Group is a specialized group whose editorial base is in Ottawa, Canada. The group includes health care professionals, researchers, and consumer representatives (those living with or affected by disease or a health issue who are not health care professionals) that belong to the Cochrane Collaboration, an international organization to help people make well informed decisions about health care by preparing, maintaining, and promoting reviews of the effects of health care treatments.

A collaborative review group, like the Cochrane Musculoskeletal Review Group, consists of people from around the world who share an interest in developing and maintaining systematic reviews relevant to a particular health area. The Cochrane Musculoskeletal Review Group covers all areas of musculoskeletal conditions, including gout, systemic lupus erythematosus, osteoarthritis, osteoporosis, pediatric rheumatology, rheumatoid arthritis, soft tissue conditions, spondyloarthropathy, systemic sclerosis, and vasculitis (Figure 3).

WORKSHOP

In January 2002, the CIHR IMHA and the Cochrane Musculoskeletal Review Group hosted a workshop to facilitate development of terms of reference for requests for applications to promote research supporting knowledge translation.

The objective of the workshop was to identify research to support clinicians and consumers in the use of high quality systematic reviews in the 6 IMHA specialty areas: musculoskeletal diseases, bone, muscle, oral, skin, and rehabilitation. The Cochrane Reviews serve as one of the best examples of compiled and systematic evidence^{5,6}, and it is important to examine whether they influence clinicians and consumers.

The aims of the workshop were to: (1) identify research

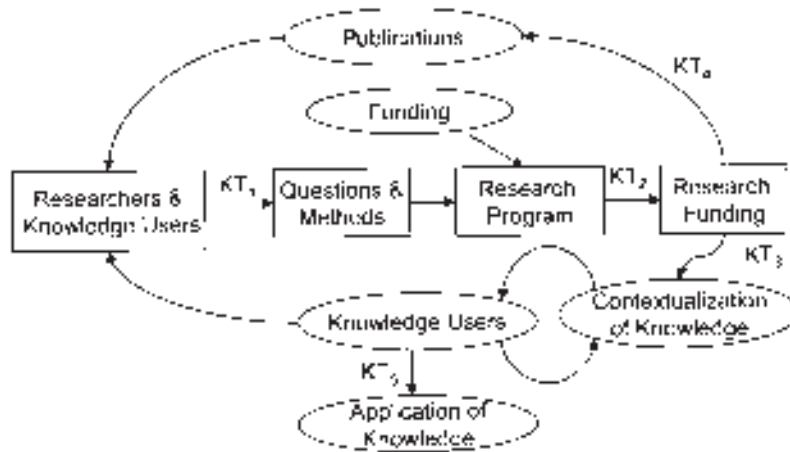
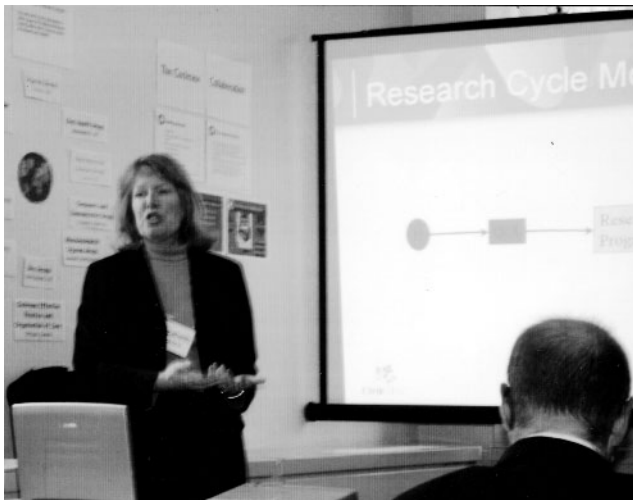


Figure 1. CIHR model of knowledge translation as an integral part of the research cycle.



A



B



C



D

Figure 2. Presenters and participants in the workshop. A. Dr. Elizabeth Dickson, Senior Policy Advisor and Director CIHR, presenting the CIHR model of knowledge translation. B. Consumer briefing on CIHR and the Cochrane Collaboration. C. Ann Qualman, Consumer Coordinator of the Cochrane Musculoskeletal Review Group, presenting on the Cochrane Collaboration. D. Dr. Cyril Frank, Scientific Director, CIHR IMHA, summarizing research priorities identified by clinicians and consumers during the workshop.

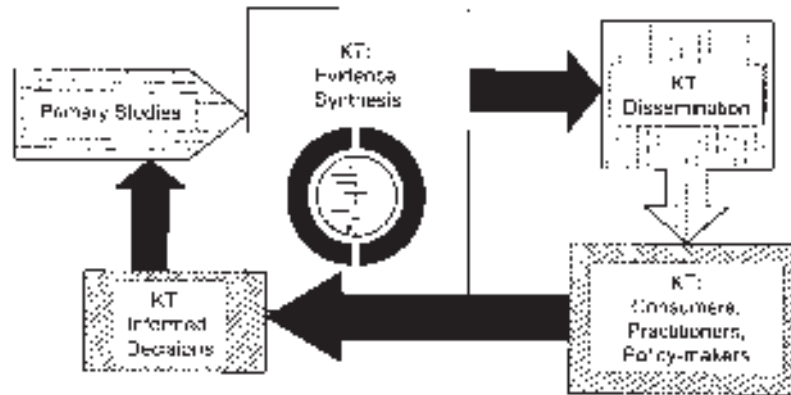


Figure 3. The Cochrane Collaboration's role in knowledge translation.

questions that will develop effective research in the area of knowledge translation within the context of Cochrane Reviews, and (2) identify the health disciplines that need to be involved to advance this research.

The workshop brought together CIHR leaders, clinicians, researchers, and consumers to identify the knowledge translation research needed for clinicians and consumers to use the results of Canadian and international health research. The participants in the workshop were asked what research is needed to improve the evaluation, dissemination, diffusion, and implementation of evidence contained in Cochrane Reviews among clinicians and consumers. Consumers were invited from each of the IMHA specialty health areas and accounted for about one-fourth of the workshop participants. A consumer briefing on CIHR and the Cochrane Collaboration was held the evening prior to the workshop (Figure 2B).

The knowledge translation workshop was a one-day event. An introduction and key question session was held in the morning followed by priority area breakout sessions in the afternoon. During the morning session, knowledge translation concepts and issues were introduced from the CIHR, researcher, clinician, and consumer perspectives (Figure 2C). Meanwhile, workshop participants wrote down key questions to be addressed. In the afternoon, these questions were grouped into themes and a breakout team was assigned to each theme. After reviewing and discussing their respective themes, each breakout group formulated priority research questions for their theme and presented them to the plenary at the end of the day.

Many potential research questions were generated from the multiple perspectives of the workshop participants and questions were grouped into 6 themes.

THEMES, QUESTIONS, AND IDEAS

1. User Characteristics

Types of consumers

- a. How do consumers differ and how do their health information needs differ by age, education, disease, and health status?
- b. Does the stage of a person's illness affect their ability to understand information and make health care decisions?

Types of professionals

- a. Do different health care professionals have different information needs?

- b. Do location of practice, type of practice, years of practice, and age affect health information needs?

2. Clinician and Consumer Awareness of Health Information Sources

- a. What is the process that will enable the identification of what people with health concerns want to know?

- b. What knowledge do consumers currently have about their disease and treatment (baseline knowledge)?

3. Training and Education

- a. How do we evaluate educating consumers and analyze what is available on Internet?

- b. Do self-management programs affect patient outcomes?

- c. Situational analysis — survey of the use of evidence by professionals

4. Accessibility of Health Information

- a. Who are the target audiences and what are the different means to reach them?

- b. How do we evaluate the availability of information?

- c. Where do consumers currently obtain their health information?

- d. How could information and communication technology be used to ensure equitable access to information by people affected by musculoskeletal conditions, regardless of who or where they are?

- e. How do we get information to people who do not have access to the Internet?

5. Format and Content of Effective Health Information

- a. What are the most effective methods of transferring information to people with health concerns? Consider: (i) quality, (ii) transparency, (iii) special interest groups

b. How do we evaluate with regard to outputs and summaries?

c. What is the impact of the quality and quantity of information available to consumers over the Internet on their decisions, health outcomes, and well being?

d. How much evidence should be communicated through the Internet and how much by paper?

e. How to support the use of evidence by consumers. Consider: (i) Surveys of consumer evidence sources and experiences introducing evidence in consultations, (ii) evaluations of the quality of consumer information leaflets, (iii) exploration studies of communication within consultations

6. Impact of Health Information on Decision-making and Health Outcomes

a. How did the consumer act on the information they received?

b. What are the incentives/barriers that would lead or prevent health care professionals/consumers from taking action to improve their health status?

c. What are the barriers and facilitators that affect people's ability to use information?

d. How to develop and validate methods for assessing barriers and facilitators for professionals? Consider: (i) interdisciplinary, (ii) variety of methods, (iii) examining theories of professional change

In the themes and questions above we present areas where workshop participants identified that more knowledge is needed to ensure Canadians benefit from health research. The following cross-cutting theme recommendations were offered for consideration:

1. Knowledge translation should reach and be understood by citizens who will generate (donate) the funds to drive research.
2. We need to explore marketing and public relations techniques within knowledge translation.
3. The role of major media and Internet based resources in the promotion of knowledge translation should be defined.
4. Effective strategies to influence medical news coverage related to health research should be identified.
5. We need to consider how academia conducts social marketing.

SUMMARY

Workshop participants identified that not enough is known (more research is needed) about the following areas: clinician and consumer awareness of health information sources, accessibility of health information, format and content of effective health information, and impact of health information on decision making and health outcomes. As we undertake research to address these questions, it is critical that we gain an understanding of the international context and ensure knowledge from systematic reviews and existing health information is fed back into primary research (Figure 2D).

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