Chapter XXXIII
IAM:
A Comprehensive and Systematic Information Assessment Method for Electronic Knowledge Resources

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ABSTRACT

Methods to systematically document the health professionals' perspective on relevance, cognitive impacts, use, and health outcomes of information items delivered by or retrieved in electronic knowledge resources (EKRs) may enhance evaluation of these resources, continuing education, and two-way knowledge ex-

change between information users and providers. The present chapter aims to overview seven years of research and development pioneering a comprehensive and systematic information assessment method (IAM), which has been validated for information delivery networks, information retrieval technology, and decision support systems. Using qualitative, quantitative, and mixed methods studies, we will support the feasibility, content validity, and construct validity of the IAM checklist combined with a computerized ecological momentary assessment technique for efficiently evaluating 'relevance-impact-use-outcomes' of information items derived from all these types of EKR. We will then present the current implementation of IAM 2008 for assessing e-therapeutics, an electronic textbook that provides updated therapeutic options for Canadian health professionals.

INTRODUCTION

Developing new useful methods to evaluate Electronic Knowledge Resources (EKRs) for health professionals is a challenge. Although technology improves access to information, EKRs do not integrate self-assessment tools for systematically evaluating information items. There are numerous questionnaires to evaluate users' satisfaction with EKRs, and there are few studies on the global use of research-based information in health sciences. However, to our knowledge, there are no published studies outside of our work that concomitantly examine the relevance, impact and use of information derived from EKRs in a systematic and comprehensive manner. Building on seven years of research and development, the present chapter proposes a unique *Information Assessment Method* (IAM) that may be considered as systematic and comprehensive.

IAM is important since health organizations are 'knowledge-intensive' firms relying heavily on information and communication technology, and specifically on EKRs. IAM is a unique validated method to systematically assess information items from the perspective of health professionals. The chapter will describe the development of this method and its potential impact for continuing education and knowledge exchange. We will present current research that shows how IAM may (1) develop continuing education for health

professionals, specifically by operationalizing the concept of reflective learning, and (2) enable two-way knowledge exchange between information providers and health professionals, and so integrate knowledge translation into organizational routines.

The literature on research utilization started in the 1970s in social sciences, and the development of knowledge translation activities in health sciences has become increasingly popular in Canada. "Knowledge translation, commercialization and industry collaboration are all aimed at engaging stakeholder communities in the funding and translation of research for effective and innovative changes in health policy, practice or products" (http://www.cihr-irsc.gc.ca/e/29529.html). However, health research on knowledge translation is underdeveloped (Graham et al., 2006): theories are needed (Grimshaw et al., 2005), and few empirical studies scrutinize knowledge translation processes and outcomes (Estabrooks et al., 2003a). Four problems hinder this development: (1) the difficulty in identifying research-based information units for evaluation purposes; (2) the lack of studies beyond basic notions on the utilization of information; (3) the use of questionnaires with unknown validity; and (4) the absence of consensus on basic concepts (Estabrooks et al., 2003a; Graham et al., 2006; Grimshaw et al., 2005; Rich, 1997).

IAM addresses the first three problems. (1) Push and pull technology permits the delivery

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