Original Research

Knowledge brokering in public health: a tale of two studies

CrossMark

R. Traynor, K. DeCorby, M. Dobbins*

Faculty of Health Sciences, McMaster University, 1200 Main Street West, Hamilton, Canada

ARTICLE INFO

ABSTRACT

Objectives: A Knowledge Broker is one approach for facilitating the integration of evidence-informed decision making in public health practice. In this paper, the findings from two studies investigating a Knowledge Broker intervention as a means of enhancing capacity for evidence-informed decision making are presented. Contextual factors that facilitate this strategy are also identified.

Study design: This paper describes work done through a single mixed-methods study (randomized controlled trial with a qualitative component) and a case study.

Methods: The Health Evidence team conducted two studies examining Knowledge Broker impact in Canadian public health departments. The effectiveness of knowledge translation strategies of varying intensities for promoting the use of research evidence in decisions related to child obesity prevention were explored via a randomized controlled trial with a fundamental descriptive component (2003–2007). In a case study (2010–2013), the authors partnered with three health departments to develop and implement tailored strategies targeted at the organization. Knowledge Brokers worked with designated staff in these studies via one-on-one consultations, small group meetings, and/or workshops and presentations. The Knowledge Broker role was assessed by analysing data from close-ended surveys, interviews, organizational documents, and reflective journals.

Results: In this paper, the authors focus on findings from the qualitative analysis of implementing the Knowledge Broker role in both studies and explore several contextual factors that impacted study outcomes. Knowledge Brokers were shown to enhance individual capacity by improving knowledge and skill in searching for, critically appraising, and applying research evidence to practice-based issues. Organizational capacity was also enhanced with strong management support and policies. Effective Knowledge Broker attributes included both expertise in research methodology and public health, as well as intangible traits such as approachability and patience. Finally, optimal positioning and ways of working were identified, including the importance of in-person meetings and neutrality of the Knowledge Broker.

Conclusions: Knowledge brokering is a potentially promising knowledge translation strategy for public health, though additional feasibility and cost-effectiveness data are still needed.

* Corresponding author.
    E-mail addresses: rtraynor@healthevidence.org (R. Traynor), kdecorby@healthevidence.org (K. DeCorby), dobbinsm@mcmaster.ca (M. Dobbins).

The research presented here further highlights the importance of context and adopting a tailored approach to implement a Knowledge Broker strategy.

Introduction

In public health and in healthcare more broadly, there is pressure to ensure that interventions are informed by research evidence, in an aim to achieve effectiveness and also economy.[1] Research evidence includes primary studies, systematic reviews, and meta-analyses.[2] Research evidence represents one input in the process of evidence-informed decision making (EIDM). Other inputs into the process include public health expertise, the local and political context, and available resources.[3] The field of knowledge translation (KT) promotes the use of research evidence in healthcare and has generally advocated for more 'active' KT strategies to promote the uptake of information (e.g. change agency), rather than 'passive' strategies (e.g. publications, website postings, mailouts to target audiences), while addressing barriers and facilitators.[4—9] At the same time, there has been an increasing demand for meaningful decision maker involvement in research[10,11] and greater emphasis on the personal factors related to KT, including trust and relationship building in this collaborative work.[12]

The role of a Knowledge Broker (KB) has been described as one that 'links researchers and decision makers, facilitating their interaction so that they are better able to understand each other's goals and professional culture, influence each other's work, forge new partnerships and use research-based evidence. Brokering is ultimately about supporting EIDM in the organization, management and delivery of health services' (page 2).[13] A key feature for KBs is this connector function, both between and among stakeholders, including researchers, practitioners, and policy makers.[14—21]

As an agent for change, a KB's role is based on the premise that interpersonal contact improves the likeliness of behaviour change,[22] making linkage and exchange a central part of the role.[16,20] A KB should also aim to improve skills for accessing and using research evidence,[23,24] with the goal of increasing readiness for uptake within the culture in which their clients work.[16]

The literature identifies key features and necessary skills for brokering and considerations for implementing and supporting KBs in their KT efforts. A KB must be skilled in research interpretation[25—27] and possess strong network ties that assist in knowledge exchange,[26,28—30] and should also be able to forge new connections across domains.[31—34] The strength of a KB's networks assist in information sharing and access to relevant, current knowledge. A key feature of brokering is the ability to recombine existing evidence to form new solutions,[32,35] capturing and sharing tacit knowledge across domains,[30,36] often by developing, operating, or acting as a knowledge repository.[25,27,29,33,34,36]

In addition to required skills, KBs need to be credible[16,20] and have the ability to gain the trust[22] and respect[22,37] of their clients. A recently released realist synthesis also indicates that a KB must be accountable, a role model, accessible, organized, and an expert.[37] Being culturally compatible (i.e. having a perceived connection with the target group), reflective, and having a positive attitude were also identified as key traits.[37]

Brokering has been implemented widely in private industry[26,26,28—33,35,36,38,39] and more recently in healthcare policy and practice.[20,25,27,34,40] The role has been implemented using various KT models in different settings, yet despite variations in the application of the role across contexts, there are many commonalities, with the key feature being the linking of knowledge producers and users to facilitate interaction and promote uptake.[20,26,41]

Although most evidence related to brokering is anecdotal,[42] projects to date suggest that brokering may be an effective way to improve the quality and usefulness of evidence employed in healthcare decision making.[25,41] Local context has demonstrated a great effect on diffusion pattern and rate of uptake,[43] making it an important consideration in brokering efforts. Regardless of purpose or audience, a KB should translate information clearly and in a way that is transparent to users.[44]

Despite the supposed potential and increasing recognition and implementation of the KB role within healthcare organizations, its effectiveness has yet to be fully established. Many questions remain about whether KBs are an effective KT strategy and how the role can be implemented to optimize impact. This paper explores the implementation of the KB role in public health, as a means of facilitating the consistent inclusion of research evidence in program decision making by public health practitioners. The results of qualitative analysis from two studies — a mixed-methods randomized controlled trial (RCT)[45] and a case study — will be discussed. The two studies reported here represent research data that support the anecdotal evidence that KBs are a promising strategy for EIDM. Quantitative findings that report the impact of the KB intervention will be briefly presented, although the focus of this paper is a description of the implementation of the KB intervention and reflection on the impact of organizational context on the KB's activities.

Methods

This paper describes a 'health department' as an organizational unit which, to varying degrees, makes its own decisions regarding programs, policies and resource allocation. Each province and territory in Canada has its own unique public health structure and functions; as such, the organizational structure of each health department that participated in these studies differed.

The results of two successive studies are reported here, with knowledge obtained in the earlier study informing the design, data collection and intervention in the succeeding