Research into Practice: the Path to the Development of an African Network of Knowledge Brokers among Health Librarians

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Abstract

The knowledge broker role is an opportunity for librarians to support health care workers' by inserting knowledge into the health worker's frontline clinical practice. Conception of an African network of knowledge brokers arose out of a knowledge broker project for health care workers initiated at Chitambo District hospital of Chitambo district in Central Zambia by the Friends of Chitambo. To achieve this, a pilot knowledge broker learning course was designed through a collaborative network between organisations in Scotland, the United Kingdom, South Africa and Zambia. The course was set in modules corresponding to elements of the Promoting Action on Research Implementation Framework – Evidence, Context and Facilitation. Formation of the African knowledge broker network was instigated through the course delivery to eight health librarians from Zambia and Zimbabwe. The course is currently being refined and will be delivered to six health librarians from Malawi, Rwanda and Zambia in the first quarter of 2020. The pilot knowledge broker learning course for Africa marks the onset of instigative sparks in the practice of knowledge brokering by African health librarians.

Keywords health librarian; knowledge broker; knowledge; evidence-based; PARiHS framework; Zambia.

Introduction

The role of the health librarians in evidence-based medicine is one that continues to evolve. The evolution of this role demands developing capabilities to transcend the routine roles of merely providing access to healthcare information through the exploitation of tools and methods that

support the conversion of knowledge into actions that can make improvements to health care service delivery.   Knowledge brokers (KBs) are suited for this, as they are information professionals actively involved in the promotion of evidence-informed decision making (Robeson, Dobbins, & Decorby, 2008). The knowledge broker role in the health care sector has been necessitated by required implementation of knowledge transfer and exchange systems meant to introduce positive changes in health care (Conklin, Stolee, Harris, & Lusk, 2013). The inherent potential of knowledge backed services to bridge the knowledge gap between evidence and frontline clinical practice (Wales et al., 2014) impels the use of knowledge brokers to facilitate this. Resultantly, health librarians in a knowledge broker role are enabled to offer specialised support for translating knowledge into the frontline practice of health care workers (Wales & Boyle, 2015). As it has been suggested, the utilisation of research into clinical practice might lead to improved health patient outcomes (Monde, Akakandelwa & Kanyengo, 2017, p. 10-11).

Knowledge brokering has been proven to offer some promise, in advancing the practice of evidence-based decision-making among frontline staff and healthcare systems (Canadian Health Services Research Foundation, 2012). It is for this reason that a knowledge broker learning course for health librarians was developed through a Scottish Government funded project led by the Friends of Chitambo Charity Organisation, Scotland; the Scottish Government eHealth (Digital Health and Care Team), Scotland; the University of Zambia (UNZA) Medical Library; Chitambo District Hospital, the Information Training and Outreach Centre for Africa (ITOCA) and the Zambia Research and Development Technology Academy *(*ZRDTA*)*. The project was technically supported by the Knowledge and Decision Support Programme of the National Health Service (NHS) Education for Scotland. The knowledge broker learning course for Africa was designed to

help develop the African health librarian's role in helping to bridge the gap between new healthcare knowledge becoming available and getting that knowledge into routine health care practice. Knowledge brokering as an intervention fosters the use of health research information in a health care workers practice. A knowledge broker has the ability to identify and overcome barriers that hinder the use of health research information – evidence-based information thereby facilitating evidence-based practice by health care workers (Glegg, 2014). Therefore, advancements in the initiation of the knowledge broker role for African health librarians may promote sharing of learning in the knowledge broker network which is cardinal for the dissemination of the concept. In this regard, it has been argued that exchange of knowledge in professional networks provides learning experiences for participants from work contexts as a result of the communication (formal or informal) facilitated through interactions in the network (Vaessen, Beemt, & Laat, 2014).

Project Objectives

The aims of this project were primarily to promote use of knowledge into action for improved emergency care in the Chitambo region, central Zambia. The project has added aims to diffuse the learning on how to effect knowledge into action into health care systems to other regions on the African continent.

Project Implementation

The initial pilot knowledge broker learning course focused on developing health librarians into knowledge broker roles in Zambia and Zimbabwe. The learning opportunity through this course was offered to other health librarians in other parts of Africa; initially from Zambia and Zimbabwe. In 2020, there are plans to train librarians from Rwanda and Malawi.

Programme Description

The knowledge broker learning course was developed by a knowledge component team of the Friends of Chitambo project comprising of librarians from National Health Service Education for Scotland, Information Training and Outreach Centre for Africa and the University of Zambia Medical Library. The course development process was spearheaded by NHS Scotland, as it had led a similar initiative to strengthen the role of health librarians as knowledge brokers, facilitating the mobilisation of knowledge into action for Scotland's health care system (Wales, Graham, Rooney & Crawford, 2012). As stated already, the goal of the knowledge broker learning course was to help health librarians understand the importance of facilitating translation of knowledge into practice in healthcare settings.   The knowledge broker learning course modules were centred on the interactive elements of the Promoting Action on Research Implementation (PARIHS) Framework (Kitson, Harvey & McCormack, 1998). This framework "*provides a way to implement research into practice*" (Kitson, Harvey & McCormack, 1998, p. 4). Harvey and Kitson (2016, p. 1) further *"argues that successful implementation (SI) of evidence into practice had as much to do with the context or setting where the new evidence was being introduced and how that new evidence was introduced (facilitated into practice) as it had to do with the quality of the evidence*". The PARIHS framework as envisaged by Hack et al. (2011) envisages a situation where knowledge translation is a "*function of the relationship between evidence (research, clinical experience, and patient preferences), context (culture, leadership, and measurement), and facilitation (characteristics, role, and style), with these three elements having a dynamic and simultaneous relationship*". See Fig. 1.

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Fig. 1. PARIHS Framework
Hack, Ruether, Weir, Grenier, & Degner (2011)

The PARiHS framework complements health care quality improvement interventions (Helfrich et al., 2010). As the process of embedding knowledge in health care systems for health care workers to engage in evidence based practices is a complex one, the PARiHS framework being representative of these complexities guides the implementation of activities to get evidence into practice (Kitson et al., 2008, p. 2). Knowledge brokers' use of the framework enables them to practically rationalise the complexities that hinder evidence based practice by healthcare workers and thereby identify appropriate methods of knowledge transfer in order to overcome them.

The Knowledge Broker Course

The knowledge broker learning course was delivered as a pilot to eight health librarians by ITOCA and the UNZA Medical Library partners of the knowledge component team. The training course was held at Cozi lodge in Lusaka from 17th to 19th April 2018. Eight health librarians; five from Zambia and three from Zimbabwe took part in the pilot knowledge broker learning course. The eight health librarians were equipped with knowledge broker skills to enable them make prototypical use of knowledge via a process system that could be ingrained in the routine work

practice of the health care workers that they support. This process, in a way would become standard operating procedures (SOPs) for knowledge into action or research into practice.

Knowledge Broker Course Aims

The knowledge broker learning course aims were to equip health librarians with knowledge and practical skills in the principles and techniques of knowledge brokering, particularly in supporting health care workers to convert expert health care knowledge for use in their decisions and actions.

Structure and Delivery of the Knowledge Broker Course

The knowledge broker learning course was structured in three parts:

1. The three day face to face session was a taught course, supported by a workbook containing four modules.

2. The blended learning component was supported by online learning modules, online discussions and teleconferences.

3. Participants were required to complete work-based activities to be submitted at the end of each blended learning module.

The delivery of the course was designed in two parts:

- The first part was a face to face learning session from 17th - 19th April 2018 held in Lusaka, Zambia.

- The second part of the course was an online distance learning programme that ran for eight weeks starting from the 11th of January 2016. See Fig. 2.

Fig. 2. Knowledge Broker Learning Course introductory pre-course module 1

Learning Outcomes of the Knowledge Broker Course

Health librarians who completed the course were expected to be confident and competent in helping healthcare workers, health care managers, patients and the public to retrieve and share health care knowledge from both research and experience, and supporting them in applying the acquired knowledge in their decisions and actions. During the blended learning session of the knowledge broker learning , it was cardinal that course participants produce a knowledge product

(evidence summary). Sixty seven percent of the participants were able to produce an evidence summary as a work based activity. It was expected that the second knowledge broker learning course will be delivered to six health librarians in first quarter 2020.   The course will be delivered to three health librarians from Rwanda, two health librarians from Malawi and one health librarian from Zambia.

Lessons Learned

Fifty percent of the participants successfully completed all parts of the knowledge broker learning course. A contributing factor to the non-completion of the full course by the other 50% of the participants could be the long duration of the blended learning component. Therefore, it is proposed that the duration of the blended learning course should be shortened in order to keep the momentum for the course going and have it achieve its intended purpose.

The course was designed to have discussion forums at the end of each module during the blended learning session. However, this did not work out well as the GoToMeeting mobile application that was chosen as means of communication and discussion for the course participants and course leaders did not facilitate this aspect of interaction. This is attributable to the fact that, the utilisation of this platform requires high strength internet connectivity and most participants failed to connect to the platform owing to their week internet connectivity. The project decided that in responding to some of these challenges, the chosen means of stimulating discussion at the end of each module during the blended learning sessions was the use of one on one mentorship. It was decided then, that each participant for the next knowledge broker learning course would be assigned a mentor. The mentors were selected from the participants of the pilot knowledge broker learning course.

Conclusions

The knowledge broker learning course for Africa marks the beginning of the practice of knowledge brokering by African health librarians in their respective countries, as they help health care workers overcome their challenges in defining and solving problems using evidence based decision making. The learning opportunity offered through the knowledge broker learning programme will help health librarians strengthen and grow their role as a key member of the healthcare system. This, as they are enabled to offer consistent and effective application of knowledge for better health care service delivery. The African knowledge broker network has the potential to promote interventions for improvements in health care in African populations, thereby contributing towards the attainment of Sustainable Development Goal (SDG 3) (United Nations, 2015, p. 16) of ensuring healthy lives and the promotion of wellbeing for all at all ages.

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