

Supplementary File 1 – Description of the peer-reviewed/academic publications included in the KT scoping review

#	1 st Author's Name & Publication Year	Population Studied	Study Design	KT Competencies			Interventions/Strategies to improve KT comps
				Knowledge	Skills	Attitudes	
A. Empirical							
1.	Barratt, 2016	35 healthcare and public health organizations in London and South East England.	Descriptive cross-sectional (surveys)	<ul style="list-style-type: none"> • Research methods including data analysis • Evaluation techniques • Understanding development in research 	<ul style="list-style-type: none"> • Time management • Applying research to practice 	None	None
2.	Bartelt, 2011	486 paediatric health care professionals.	Descriptive cross-sectional (surveys)	<ul style="list-style-type: none"> • Understanding of organization or structure of electronic library databases 	Skills in using resources to access EBP information such as: <ul style="list-style-type: none"> • searching databases • critiquing and/or synthesizing the literature • computer skills • reading peer-reviewed articles 	None	Formal and continuing education (EBP educational series were provided).

3.	Bennet, 2016	60 occupational therapists working at a large metropolitan hospital.	Participatory action research	<ul style="list-style-type: none"> • Knowledge of KT use • Change management • Understanding types of KT interventions 	<ul style="list-style-type: none"> • Teamwork • Communication on KT language • Ability to enact a structured KTA process 	Sense of optimism about KT impacting clinical outcomes.	None
4.	Bowen, 2005	62 (101 interviews); Team members from partner organizations involved in The Need to Know Project in support of rural decision-making by regional health authorities; Project's Advisory Committee & CEOs.	Participatory Action Research (semi-structured interviews)	<ul style="list-style-type: none"> • Knowing 'how things really work' in the context of knowledge users • Understanding the research and its importance • Knowledge of the importance of: • creation of an environment of interest in, and openness to, research • opportunities for collaborative research • a shared vocabulary and conceptual base • a forum for sharing 	Skills (ability to/in): <ul style="list-style-type: none"> • communicate findings in a manner that influences decision-making/more user-friendly way • conduct research of relevance to intended users • develop authentic, respectful, effective and collaborative peer/working relationships • facilitation • adult education • networking & communication 	<ul style="list-style-type: none"> • Confidence in contributions of community partners • Being nice • Attention to the political and value issues related to decision-making and control (the 'personal factor') • Trust between researchers and community partners and 	Organizational support such as time to review studies, dialogue between administration and staff; used participatory evaluation to explore characteristics of KT.

				<ul style="list-style-type: none"> • understanding of research findings • understanding of implications for practice • application and utilization of research • sustainability of interventions 		decision-makers	
5.	Cadmus, 2008	987 acute and specialty care hospital-based registered nurses	Descriptive, exploratory survey	<p>Knowledge of:</p> <ul style="list-style-type: none"> • evidence resources and how they work • research <p>Understanding:</p> <ul style="list-style-type: none"> • databases • research articles • use of evidence-based tools 	<p>Skills (ability to):</p> <ul style="list-style-type: none"> • identify, access, and evaluate information • conduct a clinical database search, appraisal, synthesis, computer skills • understand databases • understand research articles • understand the use of evidence-based tools 	<ul style="list-style-type: none"> • value research in practice • value of research self-directed lifelong learning 	Formal and continuing education. It was provided information provided at the bedside, dialogue between administration and staff, time to review and implement research findings, colleague support, creation of a culture where EBP is valued and expected; training to use databases; management support to access databases; research/EBP committees; provision of evidence-based policies/procedures; on-unit support by librarian.

6.	Champagne, 2014	Executive Training for Research Application (EXTRA) and SEARCH Canada Program fellows, colleagues, supervisors, Vice Presidents and CEOs (n=84).	Analysis of six case studies at the individual, group and organization level (triple comparative).	Knowledge in EIDM for decision-makers	<p>Skills (ability):</p> <ul style="list-style-type: none"> • for sound management and leadership • in conducting and using research (more emphasis on management and leadership in the skills) • to motivate others toward the use of EIDM • to acquire (look for and access research) • to assess the quality and relevance of research • to adapt (i.e., summarize and relate research to context) • to apply (i.e., how research recommendations inform decision making) 	<ul style="list-style-type: none"> • culture of learning • leaders: commitment to the development of research capacity and utilization in their organizations • attitudes toward EIDM 	Involvement of people in an organization, as well as high quality, active communication seems to be essential for organizational changes to occur.
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7.	Conklin, 2013	Knowledge brokers in a Seniors' Health research transfer network.	Description of a mixed-methods evaluation of the KB program development: focus groups, interviews, review of documents meeting notes, job descriptions	None	<p>Skills (ability to/for):</p> <ul style="list-style-type: none"> • use models from the peer-reviewed literature to guide practice • focus on using knowledge transfer to bring tangible improvements • place knowledge transfer activities within the context of a performance improvement model that will help focus resources on closing gaps • allow for interaction through enabling technology • work with teams and to develop relevant models and approaches 	<ul style="list-style-type: none"> • be pragmatic and positive • flexible • self-confident • experiential learner persistent 	Literature review on knowledge brokering.
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					<ul style="list-style-type: none"> • foster relationships and creating operational groups capable of producing tangible results • ensure the ongoing health and success of network alliances • link researchers who produce scientific knowledge and practitioners who produce experience-based knowledge with knowledge users • establish trusting relationships that encourage conversations about the introduction of changes into frontline practices 		
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					<ul style="list-style-type: none"> • implement a strategy for forming partnerships and engaging stakeholders • interpersonal communication • find, appraise, transform, and disseminate relevant knowledge • identify knowledge sources • assess the usefulness of knowledge and adapting it for local contexts • synthesize knowledge into usable formats • find meaningful roles for knowledge users to play in the research process • facilitate social interactions and 	
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					collaborative processes <ul style="list-style-type: none"> • facilitate skill development and adult education • disseminate information to CoP participants • facilitate discussions and meetings • handle logistical setup for meetings • prepare materials for presentations • troubleshoot technical problems • assist with membership growth • help with the preparation of knowledge translation tools • engage in analytical and planning activities 		
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					<ul style="list-style-type: none"> • coach and support people • expand existing networks • translate knowledge so it can be used by specific groups • handle administrative functions • direct, support, and negotiate • subject matter and technical skills (e.g., learning) • personal qualities that equip them to work in ambiguous social environments (including time management, flexibility, and persistence) • scanning the environment for resources • conducting assessments to 		
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					<p>identify needs and readiness for change</p> <ul style="list-style-type: none"> • developing strategies and plans to bring about change • sensitivity to organizational and occupational culture as barriers to or enablers for change • promote mutual understanding • develop new capacity • technology • working with people and groups • collaborate • research • influence and persuade • verbal and written communication • project management • empower others 		
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					<ul style="list-style-type: none"> • technical skills 		
8.	Fairbrother, 2014	169 nurses and midwives in a Wales health district, excluding those in advanced practice, management or education roles.	Quantitative, descriptive survey (exploratory).	<p>Knowledge of:</p> <ul style="list-style-type: none"> • how to find organizational info <p>how to find appropriate research reports</p>	<p>Skills (ability to):</p> <ul style="list-style-type: none"> • find research evidence • find organizational info • use the library • use the internet to search • review research evidence • review organization info • use research to change practice • use organizational info to change practice • understand research reports • identify implications of organizational info for own practice • confidently judge quality of research reports 	<ul style="list-style-type: none"> • culture of team receptive to changing practice 	Evaluated self-reported skill levels in KT.

9.	Jessani, 2016	12 academics and faculty leadership (identified as KBs) from six SPHs in Kenya; and 11 national health policy-makers with whom they interact.	Qualitative (interviews)	<ul style="list-style-type: none"> • Applied Research • Policies impacting health care • Knowing economic impact of recommendations to practice 	<ul style="list-style-type: none"> • Leadership skills • Interactive skills – ability to form relationships • Communication skills 	<ul style="list-style-type: none"> • Having a moral and social conscience • Being committed and determined • Having respect for others 	None
10.	Lundgren, 2013	42 nurses who completed bachelor thesis during their education and had 1-1.5 year work experience post-graduation.	Qualitative	Knowledge of: application of research findings	Skills (ability to): <ul style="list-style-type: none"> • find and evaluate research findings • critically think apply research findings 	<ul style="list-style-type: none"> • more analytical and selective regarding research sources • critical thinking attitude • increased confidence in own abilities • increased self-awareness of own abilities or limitations 	Formal and continuing education. Evaluated the bachelor's thesis as a tool to enhance KT knowledge and its application to practice.

						in collaborativ e situations	
11.	Scharff, 2008	Academics, and public health professionals from health departments, community-based agencies and healthcare delivery organizations (Delphi: 22; focus groups: 25).	Delphi method; focus group, work group review of developed competencies	The final set of 24 translation and dissemination (T&D) competencies were developed in three groups: 1. Foundational (n=6) • understand contextual environments • understand relationships and bases of power within & across organizations and communities • understand how research is translated into the policy process • understanding the political and regulatory realities	Skills (ability to/for): Foundational: • conducting needs assessments • identifying existing, effective evidence-based programs & materials Translation and dissemination: • tailor language, style, delivery modalities, and communication channels to specific audiences • develop or modify existing evidence-based programs to specific contexts so they	None	Descriptive research to document competencies

				<p>2. Translational & disseminational (n=11)</p> <p>3. Change (n=7)</p>	<p>are culturally and linguistically appropriate</p> <ul style="list-style-type: none"> • use a variety of communication and dissemination methodologies • ability to communicate large and complex datasets that are understandable to target audiences • recognize and use a variety of communication forms including non-verbal and visual • create processes of communication that allow systematic input and feedback from audiences • develop marketing plan to promote 		
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					<p>evidence-based interventions to communities</p> <ul style="list-style-type: none"> • communicate characteristics of public health interventions that are associated with widespread adoption and maintenance • use innovative methods (quantitative/qualitative) to evaluate and implement translation & dissemination activities • develop processes for dissemination • use innovative methods to communicate lessons learned <p>Change:</p> <ul style="list-style-type: none"> • identify and effectively collaborate and 	
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					<p>create linkages with stakeholders</p> <ul style="list-style-type: none"> • engage in communication to reduce stakeholder resistance to change • identify and implement strategies to enhance program adoption and sustainability • provide stakeholder support for adoption and sustainability of programs and policies • recognize the balance between research and community needs • provide capacity building for finances, organizational structure and 		
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					<p>processes, and training infrastructure</p> <ul style="list-style-type: none"> • use a variety of policy strategies (advocacy, policy briefs, lobbying) to effectively influence change 		
12.	Tabak, 2017	Researchers, practitioners, and policymakers participated in 2014 - 2015.	Concept mapping	Research process	<ul style="list-style-type: none"> • Communication skills • Practice partnerships • Understanding multi-level context • Make research relevant & meaningful 	None	None
13.	Wahabi, 2011	21 family medicine consultants as clinical tutors and trainers for a Family Medicine diploma program.	Unclear	Competencies are implied by the content of the teaching and the evaluation of learning and include Knowledge of: <ul style="list-style-type: none"> • how to access literature 	Competencies implied Skills (ability to): <ul style="list-style-type: none"> • apply data and evidence to local and cultural contexts • access literature 	None	Evaluated two teaching models (KT project and debates) to teach KT.

				<ul style="list-style-type: none"> critically appraise literature rank data according to hierarchy of evidence 	<ul style="list-style-type: none"> critically appraise literature rank data according to hierarchy of evidence 		
14.	Walker, 2014	584 chiropractors registered in Australia	Survey research	<p>Knowledge (understand):</p> <ul style="list-style-type: none"> EBP process form a research question develop search strategies identify the most appropriate databases on the topic under investigation confidently and critically appraise the literature 	<p>See previous column on Knowledge survey items & on Skills (ability to):</p> <ul style="list-style-type: none"> use literature to make clinical decisions use databases to find literature critically appraise literature 	<p>Survey items on Attitudes:</p> <ul style="list-style-type: none"> attention to literature 	Conducted a survey of chiropractors on KT and EBP.
15.	Yost, 2014	51 attendees at the 2010 EIDM workshop (nursing, public health, library services, and	Explanatory mixed methods, longitudinal.	None	<p>The tool these researchers developed included the following Skills (ability to):</p> <ul style="list-style-type: none"> formulate research 	None	Evaluated the impact of a KT workshop.

		nursing education).			(clinical) questions <ul style="list-style-type: none"> • search for evidence • critically appraise literature • interpret literature and determine relevance for practice 		
B. Theoretical/Conceptual							
1.	Castiglione, 2012	n/a	n/a	n/a	n/a	n/a	n/a
2.	CHSRF, 2003	n/a	n/a	n/a	n/a	n/a	n/a
3.	Grimshaw, 2012	n/a	n/a	n/a	n/a	n/a	n/a
4.	Kislov, 2014	n/a	n/a	n/a	n/a	n/a	n/a
5.	Straus, 2009a	n/a	n/a	n/a	n/a	n/a	n/a
6.	Straus, 2011	n/a	n/a	n/a	n/a	n/a	n/a