
Review Article

Immigrant Health Care Research and Knowledge Translation in Canada -A Scoping Review

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ABSTRACT

Background: Canada receives 250000 new immigrants and refugees annually. One of five Canadians is immigrant. Immigrant health care research and knowledge translation are directly related to immigrant health and population health in Canada.

Objectives: The study aims at identifying and mapping knowledge translation of immigrant health care research in Canada.

Method: An exploratory scoping review was conducted to achieve the study objectives. The findings were synthesized with a narrative approach.

Findings: The very limited immigrant health care research discoveries in very limited fields were generated incompletely to knowledge translation (5% and 3% respectively for knowledge translation rate and research-based integrated knowledge translation rate). Much less progress has been made in making available immigrant health care research evidence to inform the needs of health policymakers and stakeholders in Canada.

Conclusion: Canadian immigrant health researchers, policy makers, stakeholders and knowledge-brokers should generate co-jointly immigrant health care research and effective and integrated knowledge translation. The funding agencies should provide much more support on the research and knowledge translation for the optimal improvement of immigrant health and population health in Canada.

Key words: immigrant health care research, knowledge translation, Canada.

INTRODUCTION

Immigration has become a profound global phenomenon in this century [Stewart2006]. Migrants' health is becoming an increasingly important public health matter [WHO 2008]. Canada admits about 250,000 new immigrants and refugees every year [Swinkels2010, CHSRG2014]. Today, Canada's foreign-born population accounts for approximately one out of every five Canadian residents [SC2007]. Canadian primary health care, although universally available, does not necessarily provide equitable care to new and established immigrants, because they have unmet health care access needs and specific barriers in

accessing and navigating these services [Scheppers 2006, Higginbottom 2015, Kalich2016]. It has been well-known that health research findings can optimize their impact on policy, practice and patient outcomes if they are appropriately translated into health-care practice [Thamlikitkul 2006, Armstrong 2007, Higginbottom 2013]. It is essential in immigrant-receiving countries to encourage migrant health knowledge production, to document and disseminate best practices and lessons in addressing migrants' health needs [WHO 2008, WHO 2010]. Meanwhile, the diverse and multicultural nature of Canadian society and the Canada's statutory commitment to

multiculturalism mean that knowledge translation related to immigrant experiences in seeking, accessing and receiving health care services is urgent and imperative to realize the population's health and well-being and the health potential for future Canadians [Higginbottom 2011, Higginbottom 2012, Gina 2015].

Usually, systematic reviews are used to identify utilization or effectiveness of research findings, to meet the needs of health policymakers and health care providers, and to encourage partnerships between researchers and stakeholders [Lavis2006, Grimshaw2012]. They have become increasingly popular to a wide range of stakeholders and policy-makers [Moher 2007, Perrier 2011]. Scoping review (or scoping study), a systematic review, is a rapid gathering of literature in a given policy or clinical area where the aims are to accumulate as much evidence as possible and map the results [Wilson 2012, Giustini2017]. Scoping studies have been used across a range of disciplines for a wide variety of purposes to identify knowledge gaps, set research agendas, and identify implications for decision-making [Pham 2014, Khan 2015, Tricco 2016], and have become an increasingly popular approach for synthesizing research evidence [Levac 2010, Colquhoun 2014]. The Canadian Institutes of Health Research (CIHR) defines scoping reviews as "exploratory projects that systematically map the literature available on a topic" objectives [Grimshaw2010].

The aim of this study was to identify knowledge translation of immigrant health care research discoveries in Canada by a scoping review and narrative synthesis of the findings in order to "invite critical reflection" and to inform future research, decision-making and funding directions on immigrant health care research and knowledge translation.

METHOD

A scoping review was undertaken to identify and map knowledge translation of

immigrant health care research in Canada. It was an appropriate and feasible systematic review approach to achieve the objectives of this study [Arksey 2005, Armstrong 2011, Boydell2012]. A comprehensive search strategy of multiple English and French electronic databases (PubMed, CINAHL, PsycINFO, Medline, Embase, Cochrane, Google and Google Scholar, Theses/Dissertations in universities, and others) was employed to identify research studies published since 2000 on immigrant health care research and knowledge translation in Canada [Higginbottom 2014]. Searches were also supplemented by checking the reference lists of included articles, conference proceedings and grey literature [LaRocca 2012]. The materials published in books were not included to this study for ensuring accuracy. Searching accuracy was checked using duplicate reading [McKibbon2010]. The minimum inclusion criterion was a statement of the study including immigrant health care research and policy or practice implications, which was used as comparison with immigrant health care research and knowledge translation. However, the basic inclusion criterion was a description of the study including immigrant health care research and knowledge translation. Due to the heterogeneity of the included studies, the studies are not sufficiently comparable to each other [Scheppers 2006]. Firstly, the articles meeting minimum and basic inclusion criteria were identified through screening titles and abstracts by the author of this paper. Then, some of them were selected after carefully reviewing full text. Finally, the related data were extracted and compiled. The findings were synthesized using a narrative approach and formatted to a scoping review table.

Findings

In total, the titles and abstracts of the 258 articles reported immigrant health care research in Canada were reviewed; the full-texts of 56 articles were retrieved, re-

reviewed and assessed. Of 258 articles, 12 papers met the basic inclusion criteria reported immigrant health care research and knowledge translation in Canada; 25 papers met the minimum inclusion criteria reported

immigrant health care research and policy and practice implications in Canada. The findings of this scoping review was formatted the table as following:

Table of Immigrant Health Care Research and Knowledge Translation (KT) in Canada

Item			Percentage in 258 articles				Knowledge			
			Synthesis	Dissemination	Exchange	Brokering				
Integrated knowledge translation (8 articles)	Research-based KT(3 articles)	Female mental health (1 article: thesis)	0.39	1.16	3.10	4.65	Yes	Yes	No	No
		Immigrant and refugee health (2 articles: clinical guideline)	0.78				Yes	Yes	No	No
	KTderived from systematic review (4 articles)	Female health (3 articles)	1.16	Yes			Yes	No	No	
		Female mental health (1 article)	0.39	Yes			Yes	No	No	
	KTderived from data analysis (1 article)	Female mental health (1 article)	0.39	Yes			Yes	No	No	
End-of-grant knowledge translation (4 articles)	Research-based KT (2 articles)	Community health (2 articles: thesis and report)	0.78	1.55	Yes	Yes	Yes: thesis No: report	No		
	KTderived from systematic review (1 article)	Female health (1 article: clinical practice)	0.39		Yes	Yes	No	No		
	KTderived from data analysis (1 article)	Community health (1 article: report)	0.39		Yes	Yes	No	No		
Item							Percentage in 258 articles		Generating health care research to KT	
Policy and practice implication (25 articles)	Mental health (2 articles)		0.78	9.69	No					
	Female mental health (3 articles)		1.16		No					
	Female health (6 articles: 1, 4 and 5 articles for report, systematic review and research-based)		2.33		No					
	Community health (8 articles: 7 and 1 articles for research-based and data analysis)		3.10		No					
	Children health (2 articles: research-based)		0.78		No					

DISCUSSION

While the author reviewed a large number of publications, it was noted that only 12 of 258 articles in immigrant health care research in Canada were identified to report knowledge translation. The knowledge translation rate was less than 5%; the integrated and end-of-grant knowledge translation rates were respectively about 3% and 1.6%; in particular, the research-based integrated knowledge translation rate was only 1%, which was less than the combined knowledge translation rate (1.9%) derived from systematic review and data analysis. Most of the 12 papers focus on immigrant female health or mental health research and knowledge translation, lacking papers of immigrant children, young, disabled, family, refugee, racial health care research and knowledge translations. Meanwhile, particularly there were deficiencies of articles of immigrant health care research

and knowledge translations in infectious diseases, chronic and non-communicable diseases, maltreatment and others.

Moreover, besides 1 paper, almost all of articles only stated knowledge synthesis and dissemination, lacking knowledge exchange and knowledge brokering. Particularly, all of the articles did not stated involvement of knowledge-broker(s) or knowledge brokering plan. Therefore, the complete knowledge translation has not been done. Additionally, the papers of clinical health care research and knowledge translation were more than these of community health care research and knowledge translation.

Furthermore, only 25 of 258 articles in immigrant health care research in Canada stated clearly policy and practice implication, but its rate was almost one time than knowledge translation rate. However, unfortunately, the utilization of the research discoveries was only limited to policy and

practice implications, they have not been generated to knowledge translation. Moreover, they also focus principally on policy and practice implications in female health or mental health research.

Through analysis of the scoping review, there is indeed a major gap in immigrant health care research and knowledge translation in Canada. Five key findings include: 1. There were very limited immigrant health care research and knowledge translation in Canada, particularly research-based integrated knowledge translation. 2. There was not complete knowledge translation including knowledge synthesis, dissemination, exchange and brokering. 3. There were no comparative health care research of different immigrant sub-groups and knowledge translations in Canada. 4. There were a lot of “blind fields” in immigrant health care research and knowledge translation in Canada. 5. There was no generating from policy and practice implication to knowledge translation. The factors of much less progress leading to knowledge translation of immigrant health care research could be due to (1) having not fully understanding significance of immigrant health care research and knowledge translation, (2) shortage of immigrant and multicultural health care researchers with skills of knowledge translation and of systematic review (including scoping review), (3) deficiency of close and harmonious collaboration between immigrant health care researchers and policy makers, stakeholders, knowledge brokers, (4) lack of funding support of the research and knowledge translation.

Despite billions of dollars spent annually on health research around the world and the roughly hundreds of millions of dollars spent by the Canadian Institutes of Health Research (CIHR) on high-quality health research, a consistent finding from the literature is that the translation of research findings into practice is often a slow and haphazard process [CIHR 2005, Graham 2007, Straus 2013]. Though

Canadian health researchers produce excellent research [Graham 2007], most of findings from clinical and health services research fail to be translated into practice and policy [Grimshaw 2012], Canadian health systems fail to use research evidence optimally [Graham 2006, Straus 2009], and much less progress has been made in making available research evidence to inform the urgent needs of public policymakers and in addressing attitudinal barriers and capacity limitations [Lavis 2006]. According to the scoping review, most (over 90%) of limited immigrant health care research discoveries in Canada have not been able to be translated punctually into policy and practice. Out of question, the continuation of the very limited and slow knowledge translation of immigrant health care research will influence negatively immigrant health and population health in Canada. Obviously, the Canadian health care system needs to be responsive to diverse individual needs in order to facilitate equitable access and address the health needs of different Canadian immigrants, refugees and their families [Ganann 2015]. Canadian health care providers should provide patient-centred care to ensure that all of patients/consumers receive from all staff member's effective, understandable, and respectful care that is provided in a manner compatible with their cultural health beliefs and practices and preferred language [McKenzie 2012].

It is well-known that translating knowledge into improved health, more effective health services and a strengthened Canadian healthcare system is a key part of mandate and a priority of the Canadian Institutes of Health Research (CIHR) [CIHR 2004, CIHR 2005]. The main challenges to immigrant health care research and knowledge translation could be lack of funding and expertise, which may improve as more funding agencies and universities support this approach to immigrant health care research. The process of knowledge translation in health care research depends

on the activities of a wide range of actors, including health professionals, researchers, the public, policymakers and research funders. Funding agencies need to think about both their conceptual framework and their operational definition of KT, so that it is clear what is and what is not considered to be KT, and adjust their funding opportunities and activities accordingly [Tetroe2008].

With the scoping review, four recommendations are proposed: 1. Research needs: to need much more integrated immigrant health care research projects in different fields, intersectional research approach and complete reports in research discoveries. 2. Data needs: to need more immigrant health care research data, including analyzed data. 3. Funding needs: to need much more funding support from Canada's principal funders of research, such as the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC), and the Social Sciences and Humanities Research Council (SSHRC) [GC 2016], and other funders. 4. Translation needs: to need generating integrated knowledge translation, in particular research-based KT, in order to make research results as widely available and accessible as possible, minimize research duplication, maximize research benefits, promote research accomplishments [GC 2016]. Health care researcher, policy-makers and stakeholders (health care providers, managers, executives and other potential users of health research) need to delve deeper into the links between immigrant health care research and knowledge translation, the involvement of knowledge brokers, and to seek out and judiciously apply research findings [CIHR 2005, Graham 2007, Higginbottom 2015].

CONCLUSION

The present situation of immigrant health care research and knowledge translation is particularly worrying, and should be changed punctually. Canadian immigrant health researchers, policy

makers, stakeholders and knowledge-brokers should fill co-jointly gap between immigrant health research and knowledge translation and generate strongly overall immigrant health care research and integrated knowledge translation. Immigrant health care research discoveries should not terminate at policy and practice implications. Moreover, the reports of the research discoveries should not be confined to policy and practice implications. A great large of integrated immigrant health research data, including academic publications, press releases, take-home messages and short messages, should be produced to meet needs of policy makers and stakeholders. Immigrant health care research information and knowledge-brokering networks should be built. The funding agencies should invest more greatly on immigrant health care research and knowledge translation, because the investments can create immeasurable and inestimable value for improvement of immigrant health and population health in Canada.

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