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Potential social marketing applications for knowledge translation in healthcare: a scoping review protocol

Heather Colquhoun ,[1] Moriah Ellen ,[2,3] Jamie Brehaut,[4,5] Nedra Kline Weinreich,[6] Coby Morvinski,[7] Sareh Zarshenas ,[1] Tram Nguyen,[3] Justin Presseau,[4,5,8] Nicola McCleary,[4,5] Enola Proctor[9]

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For numbered affiliations see end of article.

Correspondence to
Dr Heather Colquhoun;
heather.colquhoun@utoronto.ca

ABSTRACT

Introduction Knowledge translation has emerged as a practice and a science to bridge the gap between evidence and practice in healthcare. While the field has appropriately borrowed from other related fields to advance its science, there remain fields less mined. One such field with potential relevance to knowledge translation, but limited application to date, is social marketing. This review aims to determine elements of social marketing interventions that could be applied to knowledge translation science. Our objectives are to: (1) summarise the types of studies that have tested social marketing interventions in controlled intervention study designs; (2) describe the social marketing interventions and their effects; and (3) propose strategies for the integration of social marketing interventions into knowledge translation science.

Methods and analysis This scoping review will be conducted using the Joanna Briggs Institute Methodological Guidance. For the first and second objectives, all English-language studies published from 1971 onwards will be included if they (1) used a randomised or non-randomised controlled intervention design, and (2) tested a social marketing intervention as defined by five essential social marketing criteria. The research team will address the third objective through discussion and consensus. All screening and extraction will be performed independently by two reviewers. Variables extracted will include intervention details using essential and desirable social marketing criteria and the context, mechanism and outcomes of the interventions.

Ethics and dissemination This project is a secondary analysis of published papers and does not require ethics approval. We will disseminate our review outputs in knowledge translation journals and present at relevant conferences across the spectrum of the field. We will produce a short and long version of a plain language summary that will be tailored to various groups including implementation scientists and quality improvement researchers.

Registration details Open Science Framework Registration link: osf.io/6q834.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This study is using a recommended approach to classify interventions as social marketing interventions.
⇒ The study will follow the most recent methodological guidance for the conduct of scoping reviews of the Joanna Briggs Institute Methodological Guidance.
⇒ The study is limited by including only intervention studies that used a control group.

INTRODUCTION

Knowledge translation (KT) in healthcare is broadly conceptualised as the processes through which knowledge producers (eg, academics and researchers) and knowledge users (eg, clinicians, policy and decision-makers, or other stakeholders) work to ensure that research is applied by stakeholders.[1] KT is both a practice and a science aimed at implementing evidence-based practices, programmes and policies in healthcare.[2 3] This issue continues to gain traction globally, and organisations such as the WHO have become more aware and involved in ensuring that research and evidence are employed in health system management, policy and decision-making.[4 5]

The field of KT has long understood the value of multidisciplinary approaches and the need to 'borrow' and learn from other fields. However, for the most part, this 'borrowing' has been dominated by behavioural and health psychology.[6] These collaborations have led to highly impactful work.[6 7] Interviews related to one of the most common KT interventions (ie, audit and feedback (A&F))[8] with 20 participants from new disciplines such as health and organisational psychology, medical decision-making and economics identified 313 testable, theory-informed hypotheses from a broad range of fields that suggest conditions for more effective A&F interventions.[9] This type of work positions the field of KT to learn from related (but previously untapped) disciplines and fields.

One such discipline of potential relevance but limited (to date) application to KT is social marketing.

Social marketing is 'the application of commercial marketing technologies to the analysis, planning, execution, and evaluation of programs designed to influence the voluntary behaviour of target audiences to improve their personal welfare and that of society'[10] (p. 7). While the term and concept of social marketing was first labelled by Kotler and Zaltman in 1971,[11] the idea dates back to 1951 with a question by Wiebe who asked 'Why can't you sell brotherhood and rational thinking like you sell soap?'.[12] Since 1971, the field of social marketing has grown considerably. Similar to KT, one of the defining attributes of social marketing is that it is not a field in its own right, but rather a field that has grown and draws from multiple other fields or bodies of knowledge, including psychology, sociology, anthropology and communications theory.[11] One of the defining features of social marketing is that it applies commercial marketing tools and techniques for the purposes of solving social or health problems, not for the benefit of the organisation doing the marketing.[13] This key distinguishing feature differentiates social marketing from commercial marketing and directly aligns social marketing to KT science.

Social marketing has a long history of focusing on health promotion issues such as smoking cessation, nutrition, vaccination, reproductive health, domestic violence, sexual assault, obesity prevention and physical activity.[14–16] As an example, Reger *et al* designed a mass media campaign for the promotion of walking among sedentary people 50–65 years old and reported a 23% increase in the number of walkers in the intervention group compared with no change in the comparison (OR 1.31, 95% CI=1.14 to 1.50).[17] This intervention included various media approaches, public relations promotions and public health activities. More recently, social marketing interventions have expanded to other areas such as tourism, recycling, action on climate change, voting and environmental protection.[18–20] Goldstein *et al* used a social marketing concept called 'social proof' to examine how consumers responded to various promotional campaigns to reuse hotel towels.[21] They demonstrated positive responses for this behaviour when the promotional materials implied that the majority of other guests were reusing their towels (ie, 'the majority of guests reuse their towels'). The effect was enhanced when they framed the message within the immediate situational context (ie, 'the majority of guests in this room reuse their towels'). Another social marketing study related to campaign donation behaviours found that when confronted with an unavailable choice (eg, including options in a choice set that cannot be chosen such as giving people information on a fundraising campaign that is currently unavailable), there was an increase in the perceived impact of their available choices; hence, donations increased.[22]

Several reviews have investigated the application of social marketing. Aras reviewed the literature to determine the benefits of social marketing in healthcare and concluded that concepts such as product, place, promotion and price play a significant role in the potential to use social marketing in healthcare.[23] Unfortunately, this review provided minimal methodological detail. Gordon *et al* summarised and updated the evidence for three systematic reviews of the effectiveness of social marketing[24] (ie, nutrition, physical activity, and alcohol, drugs and smoking) and concluded that social marketing interventions could be effective for improving diet, increasing exercise, and decreasing misuse of alcohol, tobacco and illicit drugs. Truong and Hall conducted a review in which they found 21 social marketing studies related to tourism, but focused their attention on describing which social marketing strategies were employed and not their effectiveness.[19] Truong conducted a review of social marketing studies over a 15-year period of time (ie, 1998–2012) that included a content analysis of ~800 documents.[25] They concluded an increase in social marketing studies over time and a growing base of quantitative research. They also reported limited use of behaviour change theory, resulting in challenges determining the common factors in effective interventions. While all of these reviews were valuable contributions to understanding the growth of social marketing and to a better understanding of the barriers to searching social marketing literature, they were generally limited in terms of reporting core Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA)[26] or PRISMA-ScR (Extension for Scoping Reviews)[27] elements, particularly for search, source and extraction details, and none were focused on using social marketing for KT science.

Many of the aims of social marketing are consistent and/or overlapping with KT science. Both fields share the goal of voluntary behaviour change, have an interest in designating important target groups and tailoring interventions to these groups (in social marketing this is called *audience segmentation*), understanding barriers to behaviour change and ensuring an intervention appropriately focuses on all relevant target groups (in social marketing this is called *upstream targeting*).[25] Other aspects of social marketing are more novel. Social marketing includes the utilisation of what is called the four Ps (ie, *price, product, place* and *promotion*), and directs attention at what a target audience is interested in or wants. Likewise, some of the theories employed in primary studies of social marketing[25] are common to KT (eg, Social Cognitive Theory, Theory of Planned Behaviour, Diffusion of Innovations), while some are more novel (eg, Social Influences Theory, Media Advocacy),[12] providing an opportunity to expand the theoretical applications in KT. We have found one application of social marketing in the KT literature. In 2009, Luck *et al* applied social marketing principles to design a KT intervention.[28] They effectively used the concept of audience segmentation (ie, divide your 'audiences' or targets up into homogeneous groups and design specifically for each of their needs and wants)

to encourage the adoption of collaborative care models for depression in primary care.

There is an increasing reference to the need to consider social marketing, business and market forces in KT efforts. A recent paper by Proctor *et al* suggests far greater attention in KT needs to be paid to market forces, including assessing and cultivating market demand.[29] The paper suggests that employing market demand principles requires that we ask, 'if we were to build this, would they buy?—and if so, at what price and in what quantities?' The editorial proposes several suggestions on how to include market-oriented concepts into KT including fostering communication and more shared language between KT science and market-relevant terms, and collaboration to build on the different but potentially complementary priorities, values and norms between the two fields.

There is potential scope to improve KT efforts through the application of social marketing principles. Various social marketing strategies have been proven effective across a range of behaviours, with different target groups, in different settings, and can influence policy as well as individuals.[12 25 30] While we recognise that overlap between social marketing and KT exists, the intent of this review will be to better understand areas of overlap as well as the areas that are unique, hence where novel application of social marketing to KT could be considered. Thus, our overarching goal is to begin realising the potential for using social marketing in KT science by examining the range of evaluated social marketing interventions including the contexts in which they do and do not work, the mechanisms by which they are proposed to work and the likely outcomes that could be achieved (and hence, measured). While this is not a realist review, Pawson *et al*'s framework of context, mechanism, outcome (CMO)[31] is a useful set of variables to help describe complex interventions and is well suited to both social marketing and KT interventions. A review of this nature could also facilitate a shared language in which to foster collaboration between social marketing and KT experts.

METHODS

Our review aims are consistent with conducting a scoping review. We will follow the methodological guidance outlined in the Joanna Briggs Institute Methodological Guidance for the conduct of scoping reviews,[32] and will report in compliance with reporting guidance to conduct scoping reviews (ie, PRISMA-ScR).[27] We will be descriptively mapping an emerging application to KT science, including identifying concepts, theories and sources of evidence.[33] The review will examine what we anticipate to be a complex and heterogeneous area while proposing options for future research and advancing KT science. Our search strategy will be reviewed using the Peer Review of Electronic Search Strategies criteria.[34] This protocol is registered on Open Science Framework (osf.io/6q834). Our team includes a range of KT scientists (HC, JB, TN, EP), knowledge synthesis scientists (HC, JB, SZ), marketing scientists (CM), social marketing practitioners (NW) and those who cross these disciplines (ME). The primary question of our review is 'What are the elements of social marketing interventions that are unique to social marketing compared with KT and have potential to be effective in KT interventions?' Our specific objectives are to:

1. Summarise the extent, range and nature of studies that have tested social marketing interventions in controlled intervention study designs.
2. Describe the social marketing interventions and their effects using CMO; five essential social marketing criteria; and five desirable, but not essential, social marketing techniques.
3. Propose some strategies for integration of novel social marketing interventions (ie, concepts and techniques) into KT science.

Patient and public involvement

Patients were not involved at this stage. We anticipate that in subsequent studies whereby social marketing interventions are designed and evaluated, patient and public involvement will be critical.

Eligibility criteria

Population

Population of interest for the scoping review, objectives 1 and 2, will be adults who received social marketing interventions.

Concept(s)

Operational definition of social marketing

Several studies have highlighted challenges with accurately identifying social marketing studies in the literature.[19 25] Previous reviews of social marketing studies have concluded that using the label 'social marketing' is not sufficient to identify social marketing interventions and it is necessary to apply criteria to confirm that an intervention is social marketing. We will use the defining criteria of social marketing as described by French and Russell-Bennett.[35] This criteria set was chosen as it recognises social marketing as a branch of marketing, thus grounding the criteria in the aspect of social marketing that is of greatest interest to this review. In addition, it allows for essential criteria that can be used as inclusion criteria as well as desirable criteria which will allow a fulsome intervention description. The criteria are organised as one principle (essential), four concepts (essential) and five techniques (desirable).[35] See table 1 for a list of these criteria with explanations. Our approach will be to designate an intervention as social marketing if it adheres to the five essential criteria.[35]

Context(s)

This scoping review will not limit to specific condition and will include any social marketing setting such as tourism, client change and health promotion.

Table 1 Social marketing criteria

Criteria	Explanation
Essential principle	
1. Social value creation through the exchange of social offerings (ideas, products, service, experience, environments, systems)	The aim and objectives of bringing about social value and improvement and or the reduction of social problems through a reciprocal exchange of resources or assets at the individual, community, societal or global level. Social policy, strategy, understanding ideas, products, services and experiences are developed that will enable and assist citizens to derive social benefits individually and collectively.
Essential concepts (n=4)	
1. Social behavioural influence	Behavioural analysis is undertaken to gather details of what is influencing behavioural patterns and trends. Interventions are developed that seek to influence specific behaviours and clusters of related behaviours. Specific actionable and measurable behavioural objectives and indicators are established. A broad range of behavioural theory is used to analyse, implement and evaluate interventions. These behaviours could be upstream, midstream or downstream.
2. Citizen/customer/civic society orientation focus	Policy planning, delivery and evaluation are focused on building understanding and interventions around citizen beliefs, attitudes behaviours, needs and wants. A range of different research analyses, combining qualitative and quantitative data gathering, is used and synthesised to plan, deliver and review interventions.
3. Social offerings (idea, product, service experience)	Target markets (citizens, policymakers or stakeholders) are offered products, ideas, understanding, services, experiences, systems and environments that provide value and advantage. In most cases, such social offerings are positive in nature, for example, they provide protection or the promise of better health. However, these social offerings can also involve the imposition of restrictions on freedom such as speed limits on motorways that have collective support and benefit.
4. Relationship building	The establishment of collective responsibility and the collective right to well-being is developed through a process of engagement and exchange. Citizens, policymakers or stakeholders are engaged in the selection of priorities, and the development, design, implementation and evaluation of interventions.
Desirable techniques (n=5)	
1. Integrated intervention mix	Driven by target market insight data, segmentation analysis, competition analysis and feasibility analysis to develop an effective mix of ‘types’ and ‘forms’ of interventions that are selected and coordinated to produce an effective and efficient programme to influence target group behaviours.
2. Competition analysis and action	Internal (eg, internal psychological factors, pleasure, desire, risk taking, genetics, addiction, etc) and external competition is assessed (eg, economic, social, cultural and environmental influences). Strategies are developed to reduce the impact of negative competition on the target behaviour.
3. Systematic planning and evaluation	Interventions use proven strategy and planning theory and models to construct robust intervention plans that include formative research pretesting, situational analysis, monitoring evaluation and the implementation of learning strategies.
4. Insight-driven segmentation	The aim is to develop ‘actionable insights’ and hypotheses about how to help citizens that are drawn from what target markets know, feel, believe, and do and the environmental circumstances that influence them. Segmentation using demographic, observational data and psycho-graphic data is used to identify groups that are similar and can be influenced in common ways. Segmentation leads to the development of an interventions mix directly tailored to specific target market needs, values and circumstances.
5. Co-creation through social markets	Citizens, stakeholders, and other civic and commercial institutions are engaged in the selection, development, testing, delivery and evaluation of interventions. Strategies are developed to maximise the contribution of partner and stakeholder coalitions in achieving targeted behaviours.

Type of studies

For the first and second objectives, we will include any study that is published from 1971 onwards that (1) used a controlled intervention study including randomised controlled trials (RCTs) and non-RCTs; and (2) tested a social marketing intervention that adheres to the five social marketing criteria. The intervention studies will be considered non-randomised if the authors explicitly stated that a method of randomisation was not used, or randomisation was not reported in the allocation of participants to the intervention or control groups in parallel designs or the sequence of the interventions in crossover designs. We will include any setting (eg, tourism, client change, health promotion). The year 1971 was chosen as it marks the birth of the field of social marketing. We have kept the inclusion criteria as related to any social marketing area to mine as wide of a range of interventions as possible. Our primary interest is in the interventions and thus we have chosen to include the study designs that are more likely to have a well-described intervention. We will include only English-language studies due to feasibility and resources.

We will exclude any designs other than controlled intervention studies (eg, observational studies, case reports and qualitative studies) and studies that do not adhere to the essential criteria. Also, we will exclude social marketing interventions directed at anyone <18 years of age as KT interventions are not typically directed at children or adolescents. We will exclude commentaries and conference abstracts as they are unlikely to include full intervention descriptions.

Information sources, search strategies and data collection

A comprehensive search strategy will be designed by the research team in collaboration with an information specialist at the University of Toronto. The strategy will use a combination of subject headings and text words related to objectives while applying appropriate Boolean operators tailored to each database, including: "social marketing, marketing, health, behavior, behavior change, campaign, communication, customer(s), knowledge translation, intervention, strategy, effect, effectiveness, impact, success, improve, failure". Also, we will add study types to the query to access more accurate findings, such as randomized controlled trial, controlled clinical trial, randomized, randomly, trial, quasi experimental. See online supplemental file 1, OVID-MEDLINE search strategy and search terms, for a more detailed strategy. This strategy will be additionally informed by four reviews of social marketing interventions conducted previously.[19 23–25] We will electronically search 12 databases including: Ovid MEDLINE, Scopus, Embase, Cochrane libraries, CINAHL, PsycINFO, ERIC, PubMed, the Arts and Humanities Citation, Social Science Citation and Science Citation Indices; the Centre for Reviews and Dissemination's databases; and the National Institute for Health and Clinical Excellence's publications database. We will ensure to include databases that index the key social marketing journals and/or key journals reported in reviews of social marketing to date: *Social Marketing Quarterly, Health Promotion Practice, BMC Public Health, Social Marketing, American Journal of Public Health, Journal of Social Marketing, Journal of Marketing, Journal of Consumer Research, Journal of Marketing Research, Marketing Science* and *Journal of Consumer Psychology*.

In addition, we will hand-search the reference lists of selected articles as well as the reference lists of the four social marketing reviews we have found to date. We will complete hand-searching of key social marketing journals (eg, *Social Marketing Quarterly, Journal of Social Marketing*). We will search using English for feasibility and resource implications and date (1971–current) restrictions.

For objective 3 (ie, strategies for integrating social marketing interventions into KT science), the research team will discuss the findings in a series of meetings. The analytical frame for aligning social marketing and KT will be twofold. For intervention design processes, we will use a commonly applied KT process framework, the Knowledge to Action (KTA) framework.[36] The KTA framework outlines the key steps in moving research knowledge into action. Extracted social marketing processes for intervention design will be mapped to the KTA framework to illustrate areas of alignment and areas of uniqueness. For the intervention components, we will use the Cochrane Effective Practice and Organization of Care framework for KT interventions which represents a structure for organising, defining and labelling the most common KT interventions.[37] The following questions will be considered together with the mapping to guide team discussions: Where are the overlaps and gaps related to social marketing versus KT?; Which social marketing theories or frameworks appear to have the most utility to KT?; What social marketing benchmarks or intervention components have the most utility for KT?; Are there any specific contexts, mechanisms or outcomes that show promise for new applications in KT?; What next steps would support the integration of social marketing concepts into the field of KT, and what might the challenges be? Sessions will be audio-recorded to facilitate summary development.

Study screening and selection

All retrieved articles from databases will be combined, and duplicates will be removed. Screening title and abstracts will be followed by screening full-text articles. All screening will be performed independently by two review authors using Covidence software. Discrepancies will be resolved by consensus or involvement of a third reviewer. Screening will first occur using a pilot in which batches of 50 studies will be screened until >80% agreement is achieved. Any discrepancies will be resolved by consensus or involvement of a third reviewer.

Data extraction

Two reviewers will independently extract data from each included study using a standardised data extraction form and using Microsoft Excel spreadsheets. We will pilot the process on a random sample of 10 articles with per cent

agreement needing to be >80% across reviewers to begin formal extraction. For each of the included studies, we will extract the following data:

1. Extent, range and nature of studies: year study conducted, countries/regions of origin, funded versus unfunded, journal name, overall topic (ie, health promotion or other), detailed topic (ie, smoking, drinking and substance abuse, nutrition, vaccination, reproductive health, domestic violence, sexual assault, obesity prevention and physical activity, family planning, driver safety, communication and transportation, environmental protection, sustainable development, tourism and leisure, recycling, action on climate change, voting, pollution prevention, waste recycling, other), sample description and size, behaviour being changed, control group if employed, study results and approach to intervention design.
2. Social marketing criteria: an intervention description will be extracted and coded into the essential and desirable social marketing criteria as yes/no. In addition, we will create a summary of the description of the criteria including a detailed description of the behaviour change goal. This extraction will be used for a confirmation that included studies adhere to the five essential social marketing criteria. We anticipate that additional clarifications beyond table 1 will be necessary to support optimal coding into the social marketing criteria and will aim to pilot our coding processes in multiple steps, with the support of our research team members who are experts in social marketing, to develop a final coding guide.
3. CMO: context, mechanism (ie, described mechanism of change, inferred mechanism of change, use of theory), outcomes in addition to behaviour (ie, attitudes, knowledge, other). To guide our extraction of context, we will use a recently published conceptual framework of context in KT science.[38] This will include extracting into the six domains of the framework (ie, actors, internal organisation processes, internal organisation climate and structures, internal organisation social behaviour, response to change and external influences) as well as the three identified levels (ie, actors, organisation, external influences).

Analysis, collating and summarising

For objectives 1 and 2, we will use counts and description lists. Depending on the results, we may further analyse into groupings (eg, for detailed topics). Intervention descriptions will be made available in the online supplemental file. Total proportion of interventions that included each social marketing criterion will be summarised as well as average number of criteria included in each intervention. A descriptive summary of the CMO variables will be developed for each study individually. For objective 3, data will be organised and analysed deductively using a consensus-driven discussion and a directed content analysis of the discussion.[39]

Presentation of results

Results of the search strategy and selection process will be described in the PRISMA flow diagram. Further, findings will report, in multiple tables, descriptions of the studies that tested social marketing interventions in RCT and non-RCT designs, and descriptions of the interventions and their effects. We will also have a description of the interventions according to their alignment to social marketing criteria. We will have a description of the interventions and studies related to the contexts in which they were applied, the mechanisms by which they were meant to work and the outcomes found. Also, we will suggest some strategies regarding the integration of social marketing concepts into the field of KT.

ETHICS AND DISSEMINATION

We will disseminate our review outputs in KT journals and present at relevant conferences across the spectrum of the field (KT Canada, Dissemination and Implementation Conference). In order to raise awareness, we will publish results in KT, professional and methods journals (all open access). We will produce a short and long version of an executive summary that will be tailored to various groups including implementation scientists, quality improvement researchers, funders and policymakers (tailored to each stakeholder group). All outputs will be developed to optimise usability. We will prioritise our conference activities to focus on workshops as opposed to oral presentations and posters.

Author affiliations
[1]Department of Occupational Science and Occupational Therapy, University of Toronto, Toronto, Ontario, Canada
[2]Department of Health Policy and Management, Guilford Glazer Faculty of Business and Management and Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel
[3]Institute of Health Policy, Management and Evaluation, Dalla Lana School of Public Health, University of Toronto, Toronto, Ontario, Canada
[4]Clinical Epidemiology Program, Ottawa Hospital Research Institute, Ottawa, Ontario, Canada
[5]School of Epidemiology and Public Health, University of Ottawa, Ottawa, Ontario, Canada
[6]Weinreich Communications, Jerusalem, Israel
[7]Department of Management; Guilford Glazer Faculty of Business and Management, Ben-Gurion University of the Negev, Beer-Sheva, Israel
[8]School of Psychology, University of Ottawa, Ottawa, Ontario, Canada
[9]Brown School, Washington University in St Louis, St Louis, Missouri, USA

Twitter Moriah Ellen @MoriahEllen, Nedra Kline Weinreich @Nedra and Coby Morvinski @morvinski

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Contributors HC and ME conceived the review. HC drafted the protocol and SZ designed the search strategy in collaboration with HC and in consultation with an information specialist from the University of Toronto. All coauthors (ME, JB, NKW, CM, TN, JP, NM, EP) were involved in the planning, editing, refinement and final approval of the protocol.

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ORCID iDs
Heather Colquhoun http://orcid.org/0000-0002-6226-2511
Moriah Ellen http://orcid.org/0000-0001-7127-7283
Sareh Zarshenas http://orcid.org/0000-0002-2872-3257

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