



Reflecting on knowledge translation strategies from global health research projects in Tunisia and the Republic of Côte d'Ivoire

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Abstract

Objectives We describe the knowledge translation strategies in two projects and share lessons learned about knowledge sharing and uptake.

Methods To generate findings for dissemination: (1) the Republic of Côte d'Ivoire (RCI) project relied on a multiple case study design to document barriers and facilitators to implementing a community-led prevention strategy targeting Ebola virus disease; and (2) the Tunisia project used several designs to assess a mental health training's effectiveness, and a case study design to explore contextual factors that may influence anticipated outcomes.

Results To share findings with participants, the RCI project relied on workshops and a pamphlet, and the Tunisia project relied on a structured half-day dissemination workshop and research summary. Facilitators that may have encouraged sharing and using findings include involving champions in dissemination activities, ongoing collaboration, and developing/implementing context-specific knowledge sharing strategies. Barriers include omitting to assess strategies, limited consideration of a wider audience, and the exclusion of a knowledge translation training component.

Conclusions Our experiences might be useful to contexts involved in global and public health research that wish to address the “know-do gap.”

Keywords Knowledge translation · KT · Global health · Côte d'Ivoire · Tunisia

Introduction

The “know-do gap” (i.e., the gap between what is known and what is done in practice) (Pablos-Mendez and Shademani 2006 p. 81) is a global health concern. This gap persists in part due to health research findings being

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predominantly shared through peer-reviewed publications, reports, and conference presentations without being adapted to non-academic audiences (Brownson et al. 2018; Pablos-Mendez and Shademani 2006; Straus et al. 2009). There is consensus in global health that tailoring the sharing of research findings to audiences is effective in “getting knowledge [to be] used by stakeholders” (Graham et al. 2006 p. 16; Siron et al. 2015).

Knowledge translation (KT) strategies may include: printed educational material, knowledge brokers, audits and feedback, videos, photographs, drawings, performances, poetry, storytelling, and workshops (Archibald and Kitson 2019; Ayuso-Mateos et al. 2019; Bornbaum et al. 2015; Bourbonnais and Michaud 2017; Caretta 2015; Eakin and Endicott 2006; Edwards et al. 2019; Grimshaw et al. 2012; Hall 2019; Hébert et al. 2020; Lafrenière et al. 2013; LaRocca et al. 2012; Profeta da Luz et al. 2005; Shelby and Ernst 2013; Yamada et al. 2015). KT strategies can be regrouped broadly into written, electronic, and visual materials, as well as interpersonal communication activities (Hall 2019; Lafrenière et al. 2013).

Studies evaluating KT strategies frequently assess impact on changes in knowledge, attitudes, and practice (Bornbaum et al. 2015; Chapman et al. 2020; Edwards et al. 2019; Lafrenière et al. 2013; LaRocca et al. 2012; Siron et al. 2015). Studies show that such strategies are most likely to have an impact on outcomes immediately after exposure to findings, with gains in knowledge and/or attitude changes being more pronounced than practice change and/or intentionality in using knowledge (Lafrenière et al. 2013; Mc Sween-Cadieux et al. 2017). Practice change may require intense, repeated follow-up strategies (Chapman et al. 2020) and therefore takes longer (Lafrenière et al. 2013). If KT strategies improve practice, they can ameliorate health outcomes (Brownson et al. 2018). Studies have also assessed KT strategies’ impact on uptake of, or change in, health policies (Oliver et al. 2014).

Several factors can influence KT strategies’ outcomes, since audiences may react differently to the same strategy (Lafrenière et al. 2013; LaRocca et al. 2012). For example, audiences whose beliefs align with evidence-informed practice and/or policy may have a vested interest in using findings (Brownson et al. 2018; LaRocca et al. 2012; Wensing and Grol, 2019). KT strategies are also more effective when they reflect cultural, political, and economic context (Malla et al. 2018). Therefore, when choosing a KT strategy, context and audience should be considered (Caretta 2015; Chapman et al. 2020; Hébert et al. 2020; Profeta da Luz et al. 2005; Siron et al. 2015), as well as the means of translation’s previously reported effectiveness among stakeholder groups (Grimshaw et al. 2012; Grol 1997; Lavis et al. 2003). Studies show that combining multiple KT strategies is effective at changing practice (Chapman

et al. 2020; Yamada et al. 2015). Of these multiple means, the ones mostly proved to be effective were those included in a KT strategy that was “active” with participants, such as interpersonal communication activities via interactive formats (Chapman et al. 2020; Forsetlund et al. 2009; LaRocca et al. 2012; Siron et al. 2015) and/or promoted learning (Chapman et al. 2020; Siron et al. 2015). Facilitators in changing policy specifically include collaborations between, and relationship building among, researchers and knowledge users (Oliver et al. 2014; Jessani et al. 2019; Lavis et al. 2009).

This paper’s objective is to describe KT strategies employed in two global health projects, one conducted in Tunisia and the other in the Republic of Côte d’Ivoire (RCI), and to highlight lessons learned, regrouped under potential barriers and facilitators to knowledge sharing and uptake. To our knowledge, there is a relative paucity of peer-reviewed literature on knowledge translation experiences specifically from Africa (Edwards et al. 2019), though these experiences are increasing in African countries (Edwards et al. 2019). Our experiences may facilitate other settings in designing, implementing, and assessing strategies embedded within global and public health research projects to help address the “know-do gap” (Pablos-Mendez and Shademani 2006 p. 81).

Methods

Description of settings

Republic of Côte d’Ivoire

The RCI is a lower-middle income country (LMIC) in Western Africa with a total population estimated at 24,294,750 (The World Bank 2017). Early in 2014, amid fragile security, Guinea and Liberia, two neighboring countries, faced an Ebola virus disease (EVD) outbreak. Given the RCI’s proximity to Guinea and Liberia, in August 2014, the government issued several administrative bans including the prohibition of: (1) people’s mobility from one side of RCI to the other; (2) the hunting and the consumption of bushmeat; (3) touching deceased bodies; and (4) handshaking between village inhabitants (Toure et al. 2014).

Several non-governmental organizations (NGOs) including Médecins Sans Frontières (MSF) and the International Rescue Committee (IRC) were deployed to the RCI’s western areas to support prevention and control strategy implementation. These organizations sought to mitigate effects of administrative bans. Beginning in December 2014, the IRC developed an innovative

community-led infection prevention strategy that consisted of training and mobilizing community leaders to share culturally and socially acceptable prevention messages. The aim was to empower local communities in identifying unsafe practices and to find culturally and socially acceptable replacement strategies (Gautier et al. 2017).

Tunisia

Tunisia is an LMIC located in North Africa regrouping approximately 11,154,372 people (The World Bank 2017; Ministère de la santé 2016). Since the 2010–2011 Revolution, rates of anxiety, depression, substance use disorders, and suicide have been concerning in Tunisia (Ministry of Health 2013).

Tunisian citizens recognized accessing mental health care as a key challenge during the “societal dialogue,” a country-wide participatory process that aimed to better understand citizens’ health concerns and create possible health reform tracks that would aid decision makers in improving the health of all, including those living with mental health problems (Comité technique du dialogue sociétal 2014). The Tunisian Ministry of Health is committed to increasing access to mental health services through the creation of the Committee for Mental Health Promotion in 2015 and adoption of the 2013 Tunisian National Strategy for the Promotion of Mental Health (Ministry of Health 2013). This strategy aims to further the transition from institutional to community-based mental health care.

Despite this political commitment, Tunisia faces health system challenges that make it difficult for the country to adequately address mental health problems. These include, but are not limited to, unevenly distributed mental health personnel across Tunisia (Charfi et al. 2020), and challenges related to mental healthcare delivery in primary care (Ministry of Health 2013; Charfi et al. 2020).

Description of research projects

Republic of Côte d’Ivoire

The RCI study aimed to document barriers and facilitators to implementing the community-led infection prevention strategy. Researchers analyzed communities’ acceptability of prevention practices, the role played by community leaders involved in the intervention, and the perceived effectiveness of using various sensitization methods. Researchers also sought to learn from this experience in order to inform future programs seeking to prevent viruses from spreading in African settings (Gautier et al. 2017).

Study methods and findings were previously published (Gautier et al. 2017). In brief, cases were the four selected districts in western RCI that participated in the community-led intervention. In each district, data were collected in three randomly selected villages (totaling 12). Data collection strategies included in-depth interviews with community leaders and members involved in the intervention. In total, 61 interviews were conducted and analyzed using thematic analysis (Boyatzis 1998).

Tunisia

Given primary care physicians’ (PCPs’) key involvement in mental healthcare delivery, albeit with some limited capacities (Spagnolo et al. 2020), one of the first mandates of the Committee for Mental Health Promotion was to improve continuing mental health training for these healthcare professionals (Ministry of Health 2013). The Committee was interested in implementing a mental health training program under its leadership to meet physicians’ mental health needs and to consider its potential scalability. Members of the Tunisian Ministry of Health, in collaboration with the School of Public Health at Université de Montréal and the World Health Organization (WHO) office in Tunisia, implemented a training based on the Mental Health Gap Action Programme (mhGAP) Intervention Guide (IG) (version 1.0) (WHO 2010).

A pilot project in the Greater Tunis area, the implementation covered four governorates. Training was offered to PCPs working in the public sector and primary healthcare clinics between February and April 2016. Evaluation was conducted between January 2016 and September 2017. The training’s evaluation for short- and long-term effectiveness on PCPs’ mental health capacity was conducted using an exploratory trial, which included a pretest–posttest control group design, a one-group pretest–posttest design, and a repeated-measures design. Details on this trial have been published (Spagnolo et al. 2020). A case study design was used to explore contextual factors that may have interacted with the training program to influence its anticipated outcomes (Spagnolo et al. 2018a).

Results

Translation strategies

Republic of Côte d’Ivoire

The aforementioned methodologies generated results which were disseminated using three strategies: (1) participatory consensus workshops with community health workers (CHWs) and community leaders to share

preliminary findings, complete data collection, and validate research findings; (2) a dissemination workshop targeting public health authorities and decision makers, organized in the area's largest city (Man); and (3) the development of a pamphlet presenting key study results for community use in targeted western districts.

Strategy 1: participatory consensus workshops After completing data collection, workshops were organized in the districts' capital cities, bringing together CHWs and community leaders. Workshops aimed to reach a consensus on how they perceived their role as community sensitizers, on difficulties they had faced, and on recommendations for facilitating culturally appropriate behavior change. Workshops involved the following tasks: (1) presenting preliminary results in each district; (2) administering a survey to measure the consensus among sensitizers on the implementation of alternative or socially acceptable practices, use of communication techniques, challenges, and recommendations for future implementations; (3) summarizing results graphically on posters and discussing results; and (4) translating posters' content into local languages.

In total, 29 participants attended workshops. Important reasons for sensitizers' legitimacy across districts were that village residents knew and chose them; they were well integrated in the community, encouraging further engagement. Consensus among workshop participants was that door-to-door sensitization was the most effective dissemination strategy because it enabled sensitizers to explain to household members why and how to engage in behavior changes.

Results were represented on posters and workshop participants were invited to translate the posters into two local languages, Diula and Yoruba (Figs. 1, 2).

Strategy 2: dissemination workshop On September 22, 2015, a dissemination workshop was held in Man. This strategy differed from other workshops in that it focused on sharing preliminary results with several stakeholder groups from the wider community (regional and district-levels authorities, healthcare workers in charge of selected health areas, CHWs' supervisors, health district manager representatives, and the IRC's staff members). Four activities took place: (1) a presentation of the IRC's program; (2) the preliminary findings' dissemination to stakeholder groups (including results from participatory workshops); (3) a discussion on lessons learned; and (4) draft recommendations for improving the sensitization on EDV prevention strategies by community leaders and CHWs.

Researchers highlighted results from participatory workshops and encouraged the audience to comment on challenges faced by sensitizers and to provide suggestions to improve their work. Following discussions, participants

formulated policy recommendations. The report was emailed to all participants.

Strategy 3: pamphlet development Upon completing full data analysis (including results from participatory and dissemination workshops), researchers helped to design a pamphlet for community use. Using pictograms and lay terms, the pamphlet was an attempt to translate main research findings and recommendations to improve strategies' impact on preventing the Ebola virus's spread. The content was planned for translation into Diula and Yoruba, but researchers were unable to confirm whether these translations were done.

Tunisia

Strategy: dissemination workshop The aforementioned methodologies were used to generate results which were shared using a structured half-day dissemination workshop organized collaboratively with Ministry of Health members involved in the project, the World Health Organization (WHO) office in Tunisia, and the School of Public Health at the Université de Montréal. This pilot project's final phase was scheduled on September 22, 2017, in Tunis, Tunisia. The Presidents of the Committee for Mental Health Promotion and the Technical Committee for Suicide Prevention invited all PCPs who participated in the study, as well as Tunisian psychiatrists who trained the PCPs, physicians responsible for continuing medical education in the Greater Tunis area, and governorate directors. This dissemination session's agenda is outlined in Table 1.

In total, 61 people attended the dissemination workshop, including study participants, the Presidents of the Committee for Mental Health Promotion and the Technical Committee for Suicide Prevention, as well as the Tunisia WHO office Health Systems Advisor. This workshop's objectives were to share preliminary pilot findings and generate discussion around the findings and their key themes.

During the workshop, PCPs explained that legal restrictions prevent their prescription of some pharmacological treatment (Spagnolo et al. 2018a, b). Despite restrictions, these medications are available in Tunisia and listed in the mental health training offered. Some stakeholder groups present were unaware that this legislation was still followed and discussed the need to remove it from circulation in support of future mental health training programs and the increased PCP involvement in mental healthcare delivery in primary care settings.

Discussions around findings during the workshop were summarized in an action plan to improve PCPs' use of mental health training and their involvement in mental healthcare delivery, written by the first author and

Fig. 1 A community leader translates the content of posters into Yoruba, Danané districts (Republic of Côte d'Ivoire: study 2015–2016) (photograph credits: second author)



Fig. 2 Posters translated in Yoruba (green) and Diula (blue), Biankouma district (Republic of Côte d'Ivoire: study 2015–2016) (photograph credits: second author) (Color figure online)

validated by the Presidents of the Committee for Mental Health Promotion and the Technical Committee for Suicide Prevention. The action plan (Table 2) and a summary of

preliminary pilot findings presented during the workshop were emailed to all study participants.

Table 1 Dissemination workshop agenda (Tunisia; study: 2015–2019)

Time	Dissemination activities	Animators
9 h–9 h 30	Welcome of participants	Presidents of the Committee for Mental Health Promotion and the Technical Committee Against Suicide; the former Health Systems Advisor of the WHO office in Tunisia; the first author
9 h 30–9 h 45	Introduction and objectives	Presidents of the Committee for Mental Health Promotion and the Technical Committee Against Suicide; the former Health Systems Advisor of the WHO office in Tunisia
9 h 45–10 h 35	Presentation of the results (Part 1): Impact of the mental health training program	The first author
10 h 35–11 h	Discussion with the audience about Part 1 of the results	Presidents of the Committee for Mental Health Promotion and the Technical Committee Against Suicide; the first author
11 h–11 h 30	Break	
11 h 30–12 h 10	Presentation of the results (Part 2): Factors interacting with the training program that may have influenced anticipated outcomes	The first author
12 h 10–12 h 30	Discussion with the audience about Part 2 of the results	Presidents of the Committee for Mental Health Promotion and the Technical Committee Against Suicide; the first author
12 h 30–13 h 30	Future orientations (action plan)	Presidents of the Committee for Mental Health Promotion and the Technical Committee Against Suicide
13 h 30–14 h 30	Lunch	

Discussion

Lessons learned

Through the literature on KT in the health field, we identified and regrouped what we consider to be challenges and facilitators that could influence knowledge sharing and uptake in our respective experiences' context.

Challenges

Assessing the translation strategy Trainees' voluntary participation in the PCP training offered in Tunisia was attributed to its clinical utility (Spagnolo et al. 2018a). We assume, but cannot ascertain, given the absence of a post-dissemination session follow-up, that participants' interest in training and discussions during the workshop encouraged them to use study findings to build personal and organizational mental health capacity. Similarly, dissemination strategies' impact in RCI was elusive because project researchers spent limited time in the study setting. Long-term, continuous contact between researchers and knowledge users may help sustain local commitment to study recommendation implementation (Malla et al. 2018). In addition, a high staff turnover among study participants involved in the RCI project included a key research partner. Not being able to pursue discussions prevented researchers from envisioning a longer-term assessment.

Difficulty retaining staff who have participated in research projects and, subsequently, KT activities can be a

challenge for knowledge uptake, which can affect quality of care (Aveling et al. 2015; Gerein et al. 2006). While addressing staff turnover in LMICs is beyond this paper's scope, we believe that key questions should be discussed: What are the short- and long-term health system impacts (including costs, patient outcomes, unintended consequences) associated with the inability to translate findings from health research into practice and policy, given difficulties retaining staff?

A lesson learned from what we omitted in our projects is the importance of evaluating KT strategies' impacts on evidence use. Studies highlight neglect in these assessments in LMICs (Siron et al. 2015) and over the longer term (Edwards et al. 2019). KT strategy evaluation may include: participants' impressions of translation activities, with more positive perceptions being related to increased uptake (Kirkpatrick and Kirkpatrick 2006); a monitoring of strategies and their generated recommendations to promote practice and policy change (Mc Sween-Cadieux et al. 2018; Brownson et al. 2018); and the exploration of contextual factors that can influence strategies' implementation and anticipated effects (Siron et al. 2015). Authors highlight the need for evaluations to go beyond the predominantly used case study and to include impact evaluations with pre–post designs, evaluations using implementation science theories and frameworks, and participatory methodologies to better understand power dynamics in the processes around sharing and translating evidence in the health field (Edwards et al. 2019).

Some cautions are worth noting. First, authors highlight that these “newer” KT strategy evaluation designs may not

Table 2 Action plan, based on the results disseminated (Tunisia; study 2015-2019)

	Suggestions	Orientations
THEME 1: Training primary care physicians in mental healthcare delivery	1. Offering clinical internships in the field of mental health	Organizing, with the help of governorate directors, clinical internships for those who participated in a mental health training program Identifying a procedure, with the help of governorate directors, to institutionalize mental health internships for all primary care physicians
	2. Assuring the continuity of mental health training programs	Implementing, with the help of the WHO office Tunisia and governorate directors, other trainings based on the Mental Health Gap Action Programme Intervention Guide in the Greater Tunis area and in other areas of Tunisia (especially for PCPs excluded from the revamp of the family medicine university curricula—which includes additional mental health training and an internship) Offering refresher courses to PCPs who participated in the training based on the Mental Health Gap Action Programme Intervention Guide Discussing with the Ministry and governorate directors of the possibility of creating a group that could coordinate the implementation of mental health training programs based on the Mental Health Gap Action Programme Intervention Guide
	3. Offering support	Organizing, with the help of the governorate directors, clinical case discussions regrouping primary care physicians and specialists
THEME 2: Prescribing psychotropic medications	1. Changing legislation	Revising, with the Ministry, legislation in order to offer physicians the opportunity to prescribe psychotropic medications available in many primary care clinics
THEME 3: Documenting administration data in the mental health field	1. Finding a way to prioritize the documentation of mental health data	Collaborating with the Ministry to further emphasize mental health statistics collected in primary healthcare clinics. This emphasis may generate information on, for example, prevalence and incidence of mental illness and substance use disorders per clinic and thus ensure that adequate resources are available to treat such conditions
	2. Digitizing medical records	Collaborating with the Ministry to digitize mental health information in patient files
THEME 4: Ensuring security within primary healthcare clinics	1. Minimizing the stealing of psychotropic medications in primary healthcare clinics	Collaborating with governorate directors to better handle and increase security around psychotropic medications within primary healthcare clinics. This might help minimize stealing of such medication at clinics, thus reassuring primary care physicians
THEME 5: Ensuring better continuity of care	1. Facilitating access to mental health services for consulting patients	Collaborating with the Ministry and governorate directors to offer better mental health care (for example, ensuring that mental health consultations are possible in regional hospitals and that an adequate number of human resources are available within clinics and governorates to address mental health needs)
		Collaborating with the Ministry and governorate directors to ensure that primary care physicians can prescribe all psychotropic medications, even during first consultations with patients
		Discussing with governorate directors ways to create services that ensure distribution of psychotropic medications within the community for patients with no support from relatives and/or friends

Table 2 (continued)

Suggestions	Orientations
2. Facilitating the continuing of services between the only operating mental health hospital in the country (Hôpital Razi) and the primary healthcare clinics (and vice versa)	<p>Creating and distributing to primary care physicians a list of psychiatrists at Hôpital Razi and their telephone numbers in order to facilitate the sharing of information and continuity of services</p> <p>Developing, with the help of the Ministry and governorate directors, a way to facilitate patient referral to Hôpital Razi, especially for primary care physicians who participated in a mental health training program and need support when treating a mental health problem and/or substance use disorder</p>

be widely used by LMIC partners, such as healthcare professionals and decision makers, given limited training in such methodologies. Partners may thus encourage training prior to implementation, since limited previous use of these designs may challenge the benefits of monitoring KT strategies (Wensing and Grol 2019). Second, choosing outcome measures to evaluate KT strategies can be tricky. While studies show that knowledge, attitudes, and practice change are commonly evaluated (Bornbaum et al. 2015; Chapman et al. 2020; Edwards et al. 2019; Siron et al. 2015), the knowledge use in decision making is not directional, as it can be influenced by contextual factors (Hennink and Stephenson 2005; Masood et al. 2020; Shroff et al. 2015; Wensing and Grol 2019). In addition, patient or community preferences are rarely considered alongside commonly used KT outcomes. Discussions around how to appropriately capture these decision-making processes and preferences should therefore be anticipated prior to developing and/or choosing KT strategies.

Building knowledge translation capacity In both Tunisia and RCI, study partners were involved in organizing KT strategies. In Tunisia, however, no formal training on these strategies was obtained. Lessons learned from our experiences in organizing and participating in a KT workshop were discussed during this paper's co-creation and have informed workshops that our study partners are envisioning for their upcoming projects. In RCI, study team members did receive training in using KT tools. These study team members mentioned that they would continue to use newly acquired skills in KT in future research projects.

Authors have advocated for building research capacity in LMICs (Beran et al. 2017). Yet, training in KT strategies is often omitted from capacity-building activities (Malla et al. 2018). Interestingly, while KT strategies are often embedded as pre-requisites to obtaining research funding

in some countries (Straus et al. 2009), their implementation is often inconsistent. To ensure that future researchers are trained in KT activities, we believe that it would be useful to encourage their mandatory incorporation in dissertations (Younas and Porr 2019). Including KT strategies in the public health curriculum may deepen the appreciation of knowledge translation into practice and policy during performance evaluations in academia. For example, instead of relying mostly on static performance indicators like number of publications, review committees can consider healthcare improvement (Wensing and Grol 2019).

Our experiences in Tunisia and RCI also taught us that it may have been beneficial in grant expenses to include a budget for KT capacity training, not only for researchers involved in the presented projects, but for other stakeholder groups as well (clinicians, health planners, etc.), since they can be vessels for retransmitting research findings in other settings (Dagenais et al. 2013), while contributing to practice and policy change monitoring. Such initiatives may also contribute to strengthening broader systems by encouraging and facilitating a culture of KT in global and public health (Edwards et al. 2019).

Widening participation The dissemination session in Tunisia was organized from 9 h until 14 h 30 on a Friday in Tunis, the country's capital. PCPs in the Greater Tunis area work Monday to Saturday between 8 h and 13–14 h. While the training program was scheduled in the afternoon to maximize participation, after PCPs finished work, this was impossible for the dissemination session, given some organizers' time constraints. In addition, Tunis, though a central city, may have been inaccessible to PCPs working in more remote areas.

Studies highlight that KT activities should consider logistics (Malla et al. 2018; Siron et al. 2015). We acknowledge that scheduling and location were factors that

session organizers in Tunisia were unable to accommodate, given funding constraints, data analysis timing, staff turnover at the WHO, and stakeholders' availabilities. Had the dissemination session been organized in the afternoon, and if it had been organized in each of the participating governorates of the Greater Tunis area, it might have regrouped more participants and hence further promoted evidence-based findings to inform PCPs' practice and health policy. To ensure information access to those unable to attend, the action plan and a summary of findings presented during the dissemination session were emailed to all participating PCPs.

Our experiences in Tunisia also taught us that it might have been beneficial to include personnel who are outside of, but with a vested interest in, the mental health field. For example, in Tunisia, not all mental health professionals work in health facilities. Hence, including these personnel (or at least those working in decision-making positions) may have helped widen the research's reach to other than health settings.

Facilitators

Involving champions Tunisian mental health champions who were active mental health consultants to the Ministry of Health were involved throughout the project, including the dissemination workshop. They are recognized by PCPs as the "political faces" of mental health in Tunisia and have a vested interest in improving mental healthcare delivery (Ministry of Health 2013). These aspects, in addition to the WHO office in Tunisia's involvement in planning this dissemination session, gave recognition and credibility to the dissemination process and findings (Brousselle et al. 2009). An action plan with recommendations to improve PCPs' mental healthcare delivery was created during the dissemination workshop. Given close collaborations with Tunisian mental health champions throughout the research and dissemination process, we were informed that they used study findings for a mental health training program scale-up to be offered to PCPs across the country.

In RCI, community leaders and CHWs participated in consensus workshops (strategy 1), several of whom facilitated the session, given their leading roles in their respective communities. Not only did their involvement reinforce their leadership roles, but it also stimulated constructive discussions on challenges each faced during their sensitization to prevention strategies, enhancing their and the community's commitment to the community-led intervention's success (Gautier et al. 2017). In addition, during these consensus workshops, participants had opportunity to identify "summarizers" and "translators" who could facilitate ongoing discussions on how to

improve the prevention strategy's uptake. These included religious leaders and CHWs. Relying on their individual leadership styles helped to further engage participants in stimulating and constructive discussions about challenges faced during sensitization and propose recommendations to address them. Political leaders in the study settings involved in the dissemination workshop (strategy 2) were relatively easy to engage. We believe that their direct experience with the EVD epidemic response, independent of the research project, may have facilitated their interest and participation in both the research itself and dissemination processes.

In sum, collaborators mobilized in the research and KT strategies can amplify their roles as community and political leaders, as illustrated in our examples, and encourage further knowledge use (Kirchner et al. 2010).

Doing research collaboratively Collaborative research involves continuous engagement in research processes, including KT. The Tunisia project relied on a five-year long collaboration between researchers, healthcare professionals, and decision makers. This collaborative approach commenced in 2015 and contributed to developing all research facets, including co-construction of research questions and identification and implementation of feasible methodologies to collect, analyze, and disseminate results. This partnership enabled "a continuous, rather than ad hoc, exchange of information" (Malla et al. 2018, p. 7).

Examples from our respective experiences support the creation of a space for linking researchers with knowledge users to facilitate ongoing collaborations and discussions throughout the research process (Brownson et al. 2018). This space, combined with co-construction of research questions based on the study settings' key priorities, has been shown to further encourage translating research finding into practice and policy (Edwards et al. 2019; Jessani et al. 2019; Lavis et al. 2009; Oliver et al. 2014) and expand relevance of KT strategies for sustainable impact (Tabak et al. 2017).

Authors in the KT field advocate for longer and coordinated partnerships between researchers and knowledge users (Gautier et al. 2018; Wensing and Grol 2019), since such partnerships are crucial to knowledge translation. This reality encourages discussions around building long-lasting research programs (rather than projects) through, for example, international research networks. However, these networks require funding for staff, multidisciplinary group creation (i.e., knowledge users, decision makers, representatives from funding agencies), and funding opportunities, particularly for sustainable infrastructure (Gautier et al. 2018; Wensing and Grol 2019).

Developing context-specific dissemination tools We developed dissemination tools that were tailored to fostering knowledge users' input (Chapman et al. 2020; Hébert et al. 2020; Malla et al. 2018; Siron et al. 2015). In RCI, during consensus workshops (strategy 1), community leaders helped us create a space where they were able to engage with and comment on research findings. We believe that this space respected the diversity of participants' views and encouraged building trust: participants realized that researchers merely had a role of supporting and facilitating discussions, rather than being evaluators. Furthermore, the space helped workshop participants share sensitive opinions, including inquiries pertaining to conspiracy theories about the Ebola virus and the EVD outbreak. This reality was also experienced in the dissemination workshop in Tunisia. We had the goal of creating a space where researchers and mental health champions presented preliminary research findings and listened attentively to study participants' suggestions on improving mental healthcare delivery via primary care. This novel opportunity for study participants to comment on research findings and to engage in discussions with local leaders and other study participants was instrumental in ensuring contextualization of findings to further inform practice and policy.

Other tactics can ensure that dissemination strategies are context-relevant: including local language use, thereby fostering participant ownership of results and their contextualization (Malla et al. 2018) and sharing messages that consider the population's beliefs and practices (Caretta 2015; Profeta da Luz et al. 2005). Local languages were used in both projects, and in RCI, a pamphlet was created that included lay and locally used terminology, as well as pictures to help summarize key findings (strategy 3).

Power dynamics in sharing research findings between researchers, community leaders, and study participants should be acknowledged, despite best efforts to foster an inclusive space where discussion is encouraged in context-relevant ways (Gautier 2018).

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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