
Article:
Sriharan, A., Harris, J. orcid.org/0000-0002-0754-7223, Davis, D. et al. (1 more author) (2016) Global health partnerships for continuing medical education: Lessons from successful partnerships. Health Systems and Reform, 2 (3). pp. 241-253. ISSN 2328-8604

https://doi.org/10.1080/23288604.2016.1220776

Health Systems & Reform

ISSN: 2328-8604 (Print) 2328-8620 (Online) Journal homepage: https://www.tandfonline.com/loi/khsr20

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To cite this article: Abi Sriharan, Janet Harris, Dave Davis & Mike Clarke (2016) Global Health Partnerships for Continuing Medical Education: Lessons from Successful Partnerships, Health Systems & Reform, 2:3, 241-253, DOI: 10.1080/23288604.2016.1220776

To link to this article: https://doi.org/10.1080/23288604.2016.1220776

Accepted author version posted online: 24 Aug 2016.
Published online: 24 Aug 2016.

Health Systems & Reform, 2(3):241–253, 2016
Published with license by Taylor & Francis
ISSN: 2328-8604 print / 2328-8620 online
DOI: 10.1080/23288604.2016.1220776

Taylor & Francis
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Research Article

Global Health Partnerships for Continuing Medical Education: Lessons from Successful Partnerships

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Abstract—The past decade has witnessed an increase in global partnerships created to strengthen health systems and provide training to health professionals in low- and middle-income countries. These partnerships are complex interventions. This study focused on unpacking the characteristics of global partnerships that provide continuing education for health professionals. A realist approach underpinned the research design to identify the mechanisms that shape successful global partnerships. Two case studies focusing on global continuing medical education (CME) were studied longitudinally using a realist evaluation approach. To complement that finding, published research reports of global CME partnerships were synthesized using a realist synthesis approach. Data were collected over a three-year period and included interviews, participant observations, document reviews, and surveys. A hybrid thematic approach guided the data analysis.

The study results suggested that global CME partnerships are highly dependent on human factors. On the one hand, motivational factors related to individual players help to shape the partnership goals, directions, and outcomes. On the other hand, relational factors such as trust, communication, and understanding play a key role in developing and sustaining global partnerships. As such, these partnerships highly rely on the individuals who champion the partnership at the country level or at the partnership level and in their ability to build relationships as well as empower key stakeholders.

Keywords: continuing medical education, global health, life long learning, partnerships

Received 31 May 2016; revised 15 July 2016; accepted 25 July 2016.

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INTRODUCTION

A well-performing, competent health care workforce is an important building block of a well-functioning health care system.[1-3] Continuing medical education (CME) plays an important role in developing and maintaining health care professionals' competencies.[4] The widening knowledge-to-

practice gap and the increasing demands for global initiatives to scale up health human resources initiatives have increased the need for global partnerships to address CME needs for health professionals in low- and middle-income countries (LMICs).[5,6] For example, the President's Emergency Plan for AIDS Relief, a global health funding initiative, reported that it provided 310 million USD to support over 3.7 million continuing education encounters between 2003 and 2008.[7] Similarly, the Global Fund to Fight AIDS, Tuberculosis and Malaria supported 14 million continuing education encounters between 2002 and 2012.[8]

These partnerships are complex because they are often introduced into existing health systems. Complexity occurs at the partnership level and at the program level. At the partnership level, partnerships are dependent upon people to initiate them, conduct needs assessments, and sustain interest in collaboration during implementation. At the program level, contextual factors, such as individual learner characteristics and their capacities, interpersonal relationships, staffing dynamics, organizational settings, and the policy and institutional settings in which a program is embedded, all contribute to the complexity.[9]

There is significant amount of literature regarding the need for continuing education initiatives in LMICs and the effectiveness of CME programs in LMICs.[10,11] Further, studies have identified that key process factors such as establishing mutual goals, establishing project oversight, monitoring, feedback, and communication are required for successful implementation of global health partnerships.[12] However, there is an important evidence gap regarding why certain global partnerships work while others fail.[13-16] This study explored global health partnerships in continuing medical education to understand how interactions between individual players in different contexts influence the outcomes of these partnerships.

METHOD

A two-part realist approach guided the research design for this study. The first part focused on realist synthesis of the literature and the second part focused on a realist evaluation of two global CME partnerships. A realist approach assumes that programs are ideas or theories developed by human beings who then implement those ideas.[17] It assumes that there is interconnectedness among the context (C), mechanism (M), outcomes (O).

Context is defined as "salient conditions that are likely to enable or constrain the activation of a program mechanism."[9] The conditions could include an organizational setup, the characteristics of program stakeholders, and their interpersonal relationships. *Mechanisms* are hidden elements that make a program work. They depend on human actions and resources and the motivations of particular people acting in particular contexts.[18]

From a realist perspective, development and implementation of global CME partnerships are underpinned by change mechanisms, which are triggered by the context in which the global CME partnerships are developed or implemented. Global CME partnerships are introduced into existing social systems that include many interacting levels of contextual influences. Lastly, global CME partnerships are based on implicit or explicit theories about what might cause change.

Realist methodology is a theory-driven approach. It starts with a preliminary candidate theory about the phenomena under study. Through the research process, this candidate theory is further refined into abstract theory. Candidate theories are identified based on an existing substantial theory in the field or based on previous research in the particular subject matter. Given the limited research in this area and lack of evidence on what shapes success and failure of global CME partnerships, this study started with a candidate theory that was derived from expert consultation. Twelve individuals who led or engaged in global CME partnerships were asked to identify what works in global CME partnerships and why. The following propositions were identified through the expert consultation process:

- If high- and low-income countries come together to address continuing education needs of health professionals in LMICs, then it is likely that these programs can address the knowledge-to-practice gaps in LMICs.
- If resource-rich countries and resource-poor countries share resources and a common goal for training health professionals, then the programs can deliver across the country borders efficiently.
- If the partnerships start with a needs assessment, then it will help the global CME partnerships to develop content to meet local learners' needs because the needs assessment will identify data about the knowledge gaps.
- If a partnership recruits local leaders to champion the program, it can successfully implement programs in the local country because the local leaders will understand the local environment.

DATA COLLECTION

A two-stage data collection approach helped explore the global CME partnership phenomena and explore the context in which it occurs and the outcomes they produce, as well as investigate the underlying mechanisms that are triggered by the context. The first stage was an exploratory stage. In this stage, research began with a synthesis of the literature on global CME partnerships to

extract information about the partnership processes, success factors, limitations, and lessons learned.

A multistage, iterative search strategy helped to identify the relevant published literature.

Given the scope of this study, the literature search was limited to traditional, mainstream scholarly sources, including journals and books. CINHAL, Cochrane Central Register for Controlled Trials, Cochrane Database of Systematic Reviews, DARE, EMBASE, ERIC, Medline, PSYCINFO, RDRB, and SCOPUS were all included in the search.

English-language articles published between January 2002 and March 2013 were included in this study. Search terms and relevant mesh terms, such as *global, health, continuing education, lifelong learning, partnership, training, international, world*, and *capacity building* were included. Appropriate wildcards used in the search accounted for plurals and variations in spelling. Searches were conducted using simple search methods as well as Boolean operators. In addition, reference list searches and expert consultations were conducted to ensure that the search approach was comprehensive. In total, 13,509 citations were retrieved from these searches between December 2007 and August 2013.

The title and abstract for each citation were reviewed against the following guiding questions:

- Does the article describe global continuing education (CE) partnerships as described in the inclusion and exclusion criteria?
- Does the article describe the partnership process and lessons learned?

After this review, 201 articles were selected for detailed screening using the following questions:

- Does the article provide a detailed description of the global CME partnership process, what worked in the partnership, and why?
- Does the article describe data on the context of global CME partnerships and assumptions?
- Does the article provide details that explore further the underlying mechanisms identified in the realist evaluation?

At the completion of this detailed screening of the articles using the above guiding questions, 14 articles were identified as relevant and as providing rigorous answers to the questions. Figure 1 provides a summary of document flow. Seven of the 14 studies included in the synthesis focused on bilateral partnerships between one LMIC partner and one high-income country partner. The remaining seven studies focused on regional partnerships involving multiple countries from the same region.

As described in Table 1, these global CE partnerships focused on a variety of health issues, including substance abuse, tuberculosis, and HIV. These partnerships involved stakeholders at the governmental, academic, and nongovernmental levels. The selected articles provided rich information about the difficulties and challenges of forming global CE partnerships. The authors of the articles were contacted for additional materials and to obtain descriptions of the partnership processes. Contact details for three authors were out of date. Only one author responded with additional background materials. Additional articles published by the same authors or additional articles about the partnership were obtained through a continuous monitoring of the literature. Table 1 provides a summary of case studies included in the realist synthesis.

The second stage was an explanatory stage to make sense of the data that emerged from the realist synthesis. Two separate partnerships that focused on global CME were studied longitudinally for three years using a realist evaluation approach. These partnerships were selected based on the nature of partnership activities (i.e., focus on global CME) and access to study the partnership activities in action.

The first partnership studied was the World Federation of Neurology's (WFN) CME initiative. The WFN acts as a global representative for over 100 national neurological associations. Its mission focuses on improving neurological care globally, including neurological education and research. As part of its mission to address the global need for advanced neurological practices, in 2001 the WFN established a neurological CE program in countries with unmet neurological training needs. The CE program was established as a joint initiative between the WFN, the American Academy of Neurology, and local neurological associations to provide continuing education to health professionals (neurologists, general physicians, and allied health professionals) who provide care in these settings. The purpose of this is to improve their knowledge and skills and to promote access to better treatment worldwide. At the time of this research, 42 countries were participating in the WFN's CE program. WFN partnership was studied between September 2007 and 2009.

The second partnership focused on was Project GLOBE. Based in New York and established in 2006, the Project GLOBE initiative facilitates the development of comprehensive, evidence-based, lifelong medical education and professional development systems for primary care physicians in LMICs.

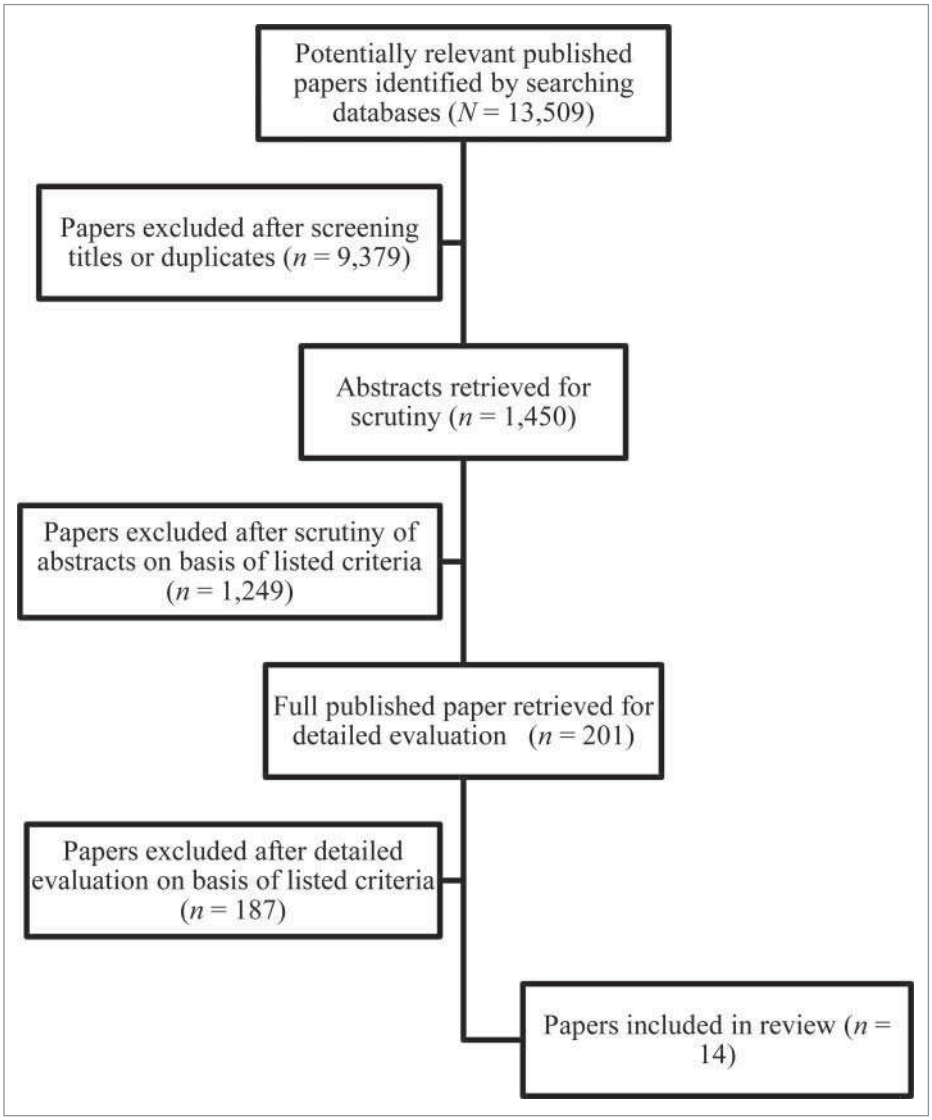

FIGURE 1. Document Flow Diagram

Overall data collection in the explanatory stage focused on

- understanding the need and rationale for the partnerships;
- understanding the intended goals and actual outcomes of the partnerships;
- exploring how and why stakeholders engaged in the partnerships; and
- identifying context, enablers, and constraints of the partnerships.

A mixed method data collection approach was used. Research ethics approval was obtained. Permission to collect data from the partnerships was obtained from the respective partnership steering committees. The American Evaluation Association's guiding principles for evaluators guided the data collection process. All individual and partnership identifiers were removed from the data analysis to maintain confidentiality. The data collection tools were adapted to the partnership context. For the WFN partnership, data collection included key informant interviews, participant observation, and surveys. The Project GLOBE partnership primarily consisted of participant observations and key informant interviews. The development, planning, and implementation of the Project GLOBE partnership were observed over the course of three years, between September 2007 and 2011, using participant observation. Table 2 provides a comparison between the two partnerships.

CASE ID #	Authors	Type of Article	Low- or Middle-Income Country Partner	Bilateral versus Regional	Organization for Economic Cooperation and Development Country Partner	Clinical Focus	Number of Supporting Articles Related to the Same Case Identified in the Literature
1	Green and Holloway[21]	Case report	Russia	Bilateral	UK	Substance abuse	Green et al.[19,20]
2	Farmer et al.[22]	Case report	Russia	Bilateral	United States	Primary care chronic disease	Clough et al.[23]
3	Rangan et al.[25]	Case report	India	Bilateral	UK	Tuberculosis	Rangan[24]; Rangan et al.[26]
4	Noyek et al.[27]	Case report	Israel, Jordan, and West Bank	Regional	Canada	Hereditary hearing loss	Skinner et al.[28]
4	Brenner and Godel[29]	Case report	Uganda	Bilateral	Canada	Pediatric infectious disease	Brenner et al.[30]
6	Ferry et al.[31]	Case report	Cambodia and Laos	Regional	United States	Tobacco	
7	Dubner et al.[32]	Case report	Global	Regional	United States	Cardiology	Moss et al.[33]
8	Deutchman et al.[34]	Case report	Global	Regional	United States	Obstetrics	Sorensen et al.[35]; Matar et al.[36]
9	Geissbuhler et al.[37]	Case report	French-speaking Africa	Regional	Switzerland	General health	Bagayoko et al.[38]
10	Llambí et al.[40]	Case report	Uruguay	Bilateral	Canada	Alzheimer's disease	Galvin et al.[41]; Llambí et al.[39]
11	Chua et al.[42]	Case report	Indonesia	Bilateral	Singapore	HIV	None found
12	Sherer et al.[43]	Case report	China	Bilateral	United States	HIV	Zhao et al.[44]
13	Cole-Ceesay et al.[45]	Case report	Gambia	Bilateral	UK	Obstetrics	None found
14	Requejo et al.[46]	Case report	South Asia	Bilateral	UK, United States	Maternal and child health	None found

TABLE 1. Description of Included Studies

Area	WFN	Project GLOBE
Focus	Neurology	Primary care
Primary role	Serve as facilitator to bring resources together	Serve as facilitator to bring resources together
Partners	Neurological societies	Academic institutions such as Dublin College, private companies such as the Pfizer Medical Humanities, and transnational professional organizations such as WONCA and the Pan American Federations of Medical Schools
Local partners	Neurological societies that are members of the WFN	Countries in which the board of directors had networks or collaborators
CME course	Preexisting CME programme and American Academy of Neurology continuum courses	Courses developed specific to the initiative
Program intention	Distribution to all neurologists of CME resources available to US neurologists	To test the effectiveness of a blended CME program in improving cardiovascular outcomes in participating countries

TABLE 2. Comparison Between the WFN CME and Project GLOBE Partnership

DATA ANALYSIS

The data analysis for this study followed an iterative hybrid thematic analysis approach,[47,48] which includes a data-driven, inductive analysis as described by Boyatzis[49] and a hypothesis-driven, deductive analysis as described by Crabtree and Miller.[50] This hybrid approach allowed codes and themes to emerge directly from the data through inductive coding, and the deductive approach allowed the data analysis to be guided by the initial propositional strands.

Mind maps were then used to connect the codes and to create candidate themes and related sub-themes. Mind maps allow visual organization of codes under themes to create relationships between themes and sub-themes. The coded data extracts were read and reread to determine whether sufficient data existed to support the candidate themes. Where quotes were relevant to more than one theme, they were reread and reassigned to appropriate larger themes. This resulted in a thematic map. After coherent patterns were identified, the second level of analysis explored the validity of individual themes in relation to the data (i.e., whether the candidate themes accurately reflected the data). The data were then scrutinized to explore the meaning of the emerging information. Irregularities, emerging patterns, explanations, assumptions, and possible ways to configure the findings were investigated until the thematic maps provided explanations for how, when, and why partnerships work in CE.

The final stage of analysis compared and contrasted themes. For the purpose of this study, *successful implementation* was defined as occurring when partnerships that focused on implementing CE activity in local contexts had the active participation of local learners in that program. Propositional statements about successful implementation were made and further analyzed using the following guiding questions to explore the contexts, mechanisms, and outcome relations:

- What is it about the context in which this occurs that has produced this outcome? Why?
- If the context were not the same, would the same outcome be produced? Why?

To help ensure that the context–mechanism–outcome configurations for each case study were appropriately assigned, key stakeholders were asked to review the emerging context-mechanism-outcome (C-M-O) configurations using the following guideline to ensure that the correct outcome and mechanism factors had been identified:

- Context: Any information that can be used to characterize the partnership. These factors can impact the partnership.
- Mechanism: Active elements of the partnership that might create change.
- Outcome: The change that occurred as a result of the partnership.

RESULTS

This study has attempted to open the black box around global CME partnerships. It identified that trust and motivation are two key mechanisms that shape the outcomes of global partnerships.

Trust

Success of the partnerships is highly dependent on individuals who lead these partnerships at the country level. Leaders who have local presence play an important role in relationship building between stakeholders to promote trust, understanding, and cooperation. For example, in one study the authors described relationship building as follows:

> Our partnership with ADRA (local NGO) allowed us to work through local presence to handle logistical problems as they arose, maintain regular contact with trainees, and to help the LLU investigators understand cross-cultural communication issues. ADRA's support was critical to the project's success in establishing excellent rapport with governmental officials, contracting for services, and eliciting local cooperation for research projects. Understanding delays in their approval process and unexpected fees were some of the barriers that ADRA was very helpful in solving with us.[31,p146]

Familiarity was an important component of trust. Individuals engage in global health partnerships based on their previous relationships with project stakeholders or through their shared interest in a particular country or health issue. For example, one of the stakeholders in a case study described his experience as follows:

> I have known [. . .] for over 20 years. When he approached me about this new program, I said, why not? I get excited about getting involved in new medical education programs. This is a great way to help [. . .] in my country. It will also give me an opportunity to work again with my friend. So, I signed up. I then spoke to our local ministry of health and to the local professional societies. They came to the initial meetings because they knew me. (Participant (P) 7)

An individual's professional standing, reputation, and perception about what should be expected from collaborating with an organization can lead to the initiation of a collaborative relationship. However, to sustain this relationship, it is important to cultivate trust between stakeholders. Trust is built when stakeholders have opportunities to network with each other, to understand each other, and to engage in mutually respectful communication. For example, in a case study, people described how creating and fostering relationships were important elements in their partnerships:

> Getting to know the stakeholders is key for the partnership success. It's hard to get all coordinators in one place on a regular basis or visit their countries. I mean, because we're talking about an international effort and nobody has any money to ferry people around to special meetings, it's hard to know about some members because we don't actually have any face-to-face contact with them unless they attend an international [. . .] conference. Therefore, we ensured the secretariat maintained regular communication with country coordinators. The chair of the education committee also contacted the country coordinators on a regular basis to encourage and motivate them. (P2)

The local project champion and the lead international collaborator both play important roles in cultivating these relationships. Relationships are further improved when individuals see project champions and collaborators as responsible, reliable, and competent. For example, a stakeholder in the case study described that

> Several of the board members were selected because they are friends of ours. These are all good people. We've known them for years, and we like them, and we've been able to work with them on other types of projects, but now, retrospectively, they aren't the right people for what we were trying to do here. They attended the meetings, but they were never fully engaged. They couldn't challenge us to think differently or bring the support we required. When you have a complex, innovative idea, you need the correct leadership functioning properly, and unfortunately we haven't had it. Because they are our friends, we could not terminate them from the board. (P5)

Further, the sustainability of the project activities is important in continuing to build collaboration. For example, in one study, authors said

> the longevity of the project has led to the institutionalization of ritual behaviors, including the exchange of gifts, visiting colleagues home for meals, and the development of close friendships.[19,p651]

Individuals who have the ability to empower their team members lead successful partnerships. The study found that when partnerships meet the motivational drives of individual stakeholders, it allows the stakeholders to continue to engage in the partnerships.

Motivation

The success of global CME partnerships is highly dependent on the human actors involved in the partnership and their motivations. Generally, individuals become engaged in global partnerships to meet one of the following needs: the need to accomplish goals related to local or international health, the need to belong to a group or organization to accomplish these goals, and the need for professional affiliation and recognition. For example, one case study participant noted that when "Canadian pediatricians fortunate enough to visit Uganda return to Canada . . . memorable moments add spark to teaching, lend perspective to professional practice and busy personal lives, and motivate us."[29]

Successful global health partnerships also focus on the motivational needs of individual stakeholders. To do this, they engage in listening to their stakeholders. As one participant described it,

> When [. . .] came to visit us, we spent significant time explaining to them how our primary care works. They realized we have a different system from other countries they visited. They willingly listened to us. They assured us that their program will meet our needs. It was nice to hear. They were willing to adapt the program to our needs. (P8)

Further, successful partnerships create opportunities to address individual needs and to help individuals advance professionally. According to one case study, successful leaders understand "helping others to help themselves and, in so doing, enable hose helped to continue the process with their communities and neighbors."[27,p69] These opportunities ranged from "train the trainer" programs to appointments within international organizations, such as professional societies and universities.

Aligning the programs with local initiatives helps with engaging local decision makers. This opens up access to financial and infrastructure resources for the program. According to the authors of a paper,

> Political and professional concern about the spread of HIV and AIDS in Russia and recognition of the link between drug abuse and the spread of HIV infection has also encouraged improved communication and resulted in a modest increase in resources from the city agreed by the Health Committee.[19,p649]

Successful partnerships commonly used local content experts or language experts who were familiar with the local culture to help shape the continuing medical education content to a local context. This improved engagement of local learners. According to an article,

> Ethics of public health was taught by a member of the LLU Faculty of Religion who was originally from Thailand. His understanding of the Asian culture and beliefs allowed him to modify content, adjust classroom group exercises and substitute his usual textbook with one based on Buddhist ethics.[31,p144]

Study results highlighted the importance of strengthening health systems as part of the global CME partnerships to ensure that learners are supported with transferring their learning into practice. For example, in one article the authors said that in their partnership

> between the Gambian MOH [Ministry of Health], WHO [World Health Organization] and two international medical organizations to strengthen emergency health care system have combined medical education with improved resources and health service development, thereby enabling the trained health care workers to use their newly acquired skills and knowledge rather than continue the frustration caused by the absence of life-saving drugs and equipment.[45,p8]

DISCUSSION

The work of Abraham Maslow,[51] David McClelland,[52] and David Sirota and colleagues[53] on human motivation resonated with the results that emerged from this study around the motivational needs of stakeholders and the leaders ability to address those needs. According to Maslow,[51] humans have five levels of needs: physiological, safety, belonging, self-esteem, and self-actualization. According to David McClelland,[52] building on Maslow's work, humans, regardless of their gender, culture, or age, have three needs: for achievement, for power, and for affiliation. Individuals are primarily driven by one of these needs: the need for achievement or the need to accomplish goals, the need to be affiliated or belong to a group, and the need for power at a personal or institutional level, to enjoy status and recognition. Individuals also lean toward a dominant behavior based on their culture and life experience. McClelland's acquired needs theory is also known as *three needs theory, human motivator theory, motivational needs theory*, and *learned needs theory*. In the context of the global CME partnerships studied, individuals engage in global partnerships due to their commitment to a country or a clinical issue. Further, their engagement in global partnership allows them to belong to a larger initiative that helps improve training needs and health care.

Similarly, David Sirota and colleagues'[53] work on human motivation found that individuals are more likely to be engaged when there is congruence between organizational goals, individual needs, and interests. Data from this realist evaluation showed that when the partnership goals were in alignment with country priorities and individual stakeholder's interests, those partnerships were successful in implementing continuing education programs and sustaining the partnerships.

In addition, work by Johnson-George and Swap,[54] Moorman et al.,[55] Rempel et al.,[56] McAllister,[57] and Johnson and Grayson[58] on trust building all resonated with the information that emerged from this study. According to these authors, there are two types of trust: cognitive trust and affective trust.

Cognitive trust begins when one perceives that someone or something is responsible, reliable, and competent and is developed based on knowledge about an individual's reputation and about what can be expected from that individual. *Affective trust* refers to the confidence that one places in a person based on feelings generated by the level of care and concern that the other person demonstrates. Affective trust is primarily influenced by one's personal experience with the other person. It is most commonly formed when someone demonstrates care and concern about the other's welfare and shows that he or she has the other's best interest at heart. Affective trust is based more on emotions than cognitive trust, which is based on rational reasoning. According to McAllister, cognitive trust provides the basis for affective trust. As such, it must develop before affective trust develops.[57] Several partnerships included in the realist synthesis and both cases included in this realist evaluation highlighted the importance of demonstrating competence, reliability, and respectability to build initial trust between stakeholders. This is related to the concept of cognitive trust. Further, in the context of global partnerships, when partnerships engage in promoting networking, open communication, and equal engagement, individuals build trust and understanding. This is related to the affective trust concept.

Further research is required to study the different levels of trust in global partnerships and how culture and other contextual factors might shape trust.

Further, there is a need for more organizational behavior research on global health partnerships to understand how leaders can identify and address individual and organizational motivational needs. This research will help planners of

future partnerships to focus on planning their partnerships effectively by allocating appropriate resources to address trust and motivation.

Further, future research needs to focus on expanding the types of global partnerships to identify how trust and motivation shape those partnerships. In addition, this expansion in scope will help identify other underlying mechanisms that shape global health partnerships.

The realist approach is a relatively new approach to study complex interventions. There are new emerging methodological guidelines such as the 2013 *RAMSES* publication standards for realist synthesis.[59] Though the realist synthesis described in this article was conducted before the publication of the 2013 *RAMSES* guideline, every effort was taken to ensure that the realist synthesis complies with such standards.

For example, there are wide variations in how candidate theories are identified and C-M-O configurations are developed. This study has utilized several strategies to mitigate variation and also avoid personal biases in judgment regarding methodological choices. Given the limited understanding about global CME partnerships, instead of using a random approach to pick a theory out of a plethora of potential substantial theories, expert opinions were used to construct a preliminary candidate theory about global CME partnerships. Similarly, data collection focused on a two-stage approach and included synthesis of published literature and longitudinal case study evaluation of two global CME partnerships. Further, the data analysis focused on a hybrid approach to ensure inductive and deductive reasoning. In addition, member checks were used to ensure the emerging data resonated with the global CME community.

Future research is needed to apply the findings from this research to study global health partnerships more broadly in other health contexts to explore how trust and motivation shape these partnerships.

CONCLUSIONS

This study utilized a combination of realist evaluation and realist synthesis to explore global CME partnerships. Overall, the realist evaluation deepened the understanding of global CME partnerships, and the realist synthesis provided more breadth to the understanding, allowing the opportunity to test the findings from the realist evaluation of multiple case examples.

The emerging mechanisms from the study showed that successful global CME partnerships need to focus on building trust between individual stakeholders and between institutions. It is also important for stakeholders to trust the process and for learners to trust in the content. There are two types of trust: cognitive trust and affective trust. In the context of global CME partnerships, both cognitive trust and affective trust are important for the success of the partnerships. Individuals and organizations get involved in the partnership based on the reputation of the partners and CME courses offered by the partnership. This is related to cognitive trust. However, the individuals and organizations will decide whether to continue their commitment to the partnership based on their experience with the partnership and development process. This is related to affective trust. Thus, to build successful global CME partnerships, stakeholders need to ensure that they cultivate both cognitive trust and affective trust between partners.

Similarly, it is important for the partnerships to ensure that individual stakeholders' needs and motivations are addressed to continue to engage them in the global CME partnerships.

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

No potential conflicts of interest were disclosed.

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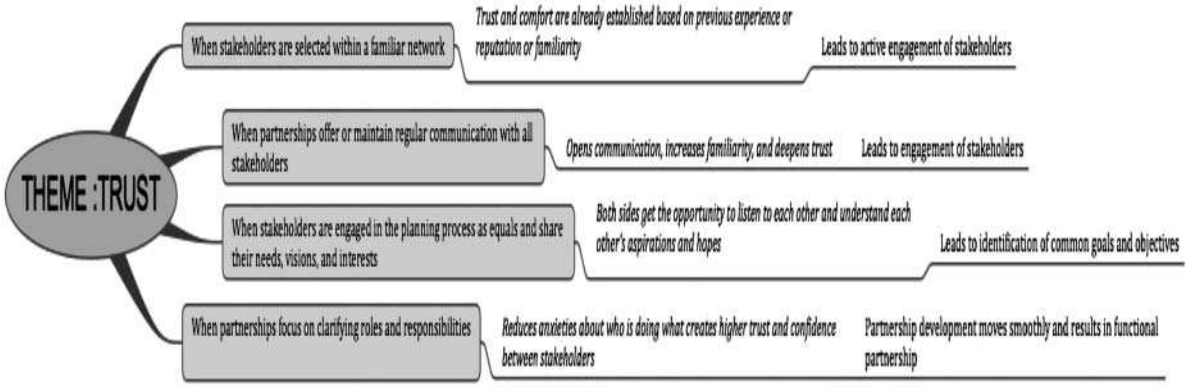
APPENDIX: EXAMPLE OF THEMATIC ANALYSIS OF COMMON THEMES ACROSS CASES FROM PUBLISHED LITERATURE

Themes: Local Stakeholders, Local Presence, Trust

- Health Committee members from St. Petersburg have been invited to the UK and meetings with them have been arranged when visiting St. Petersburg. Consequently doctors, nurse educators, and academics have been able to hold discussions with policy makers, fund holders, and with the KHF project leaders—a rare occurrence given the bureaucratic nature of Russian health provision. (P1)
- Letting the trainees assume a higher level of ownership and responsibility during the entire process of research planning and design in addition to teaching more advanced analytical skills. (P6)
- Our partnership with ADRA allowed us to work through a local presence to handle logistics problems as they arose, maintain regular contract with trainees, and to help the LLU investigators understand cross-cultural communication issues. (P6)
- The production of quality didactic material and of trustworthy reference contents by each partner is essential if a true multilateral collaborative network is to be established. (P9)
- The culture of how physicians use e-learning needs to be understood as it will influence acceptance of the programme and the ways physicians interact with one another in an e-environment. (P10)
- Our initial pioneering partnership of government, non-government agencies and academic institutions required frequent communication and negotiation to establish effective working relationships. Clearly each entity had to balance the differences in their agendas, but the results have demonstrated how working together for a common goal can create synergy. (P6)
- Involving health professionals from Uganda through community participation in needs assessment and programme implementation. This helped with the programme sustainability. (P5)
- In cases where decision to develop these activities through a "top-down" approach, it was difficult to obtain health professions' buy in and participation. (P9)
- e-Learning has its limitations, even though we know from EviMed's annual survey about topics of interest among its subscribers that Alzheimer's disease and other dementias was one of the top three topic requested by physicians. Active participation in the e-round was low, even though the enrolled practitioners were interested in the clinical discussion (as cited by their access to both clinical cases.). (P10)

Example of a Mind Map to Delineate Themes



Example of a Context–Mechanism–Outcome Matrix

Key component	Context	Mechanism	Outcomes
Partner selection	When stakeholders are selected within a familiar network	Trust and comfort are already established based on previous experience or reputation or familiarity	Leads to active engagement of stakeholders
Networking	When partnerships offer or maintain regular communication with all stakeholders	Opens communication, increases familiarity, and deepens trust	Leads to engagement of stakeholders
Exploring common interests and goals	When stakeholders are engaged in the planning process as equals and share their needs, visions, and interests	Both sides get the opportunity to listen to each other and understand each other's aspirations and hopes	Leads to identification of common goals and objectives
Developing a partnership plan	When partnerships focus on clarifying roles and responsibilities	Reduces anxieties about who is doing what and creates higher trust and confidence between stakeholders	Partnership development moves smoothly and results in functional partnership