Do we really want to know?
The journey to implement empirical research recommendations in ICRC's responses in Myanmar and Lebanon

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Abstract

Efforts to reduce the gap between the research evidence base and humanitarian responses have focused on producing quality evidence and ensuring its use for decision-making. Yet how evidence translates to field-level implementation is not well understood in humanitarian contexts. This study analysed how recommendations produced through academic research partnerships were implemented by the International Committee of the Red Cross (ICRC) in Lebanon and Myanmar. Based on implementation theory, the methodology included social network analysis to represent collective dynamics; document reviews to assess implementation; qualitative interviews to understand why actors engaged; and a critical appraisal of these combined results. The application of implementation theory provided information on 'anticipation of constraints' (access to information, staff turnover, context specificity and the need to engage a cohesive group). Future research efforts should explicitly focus on identifying and tackling implementation barriers such as power imbalances and ethical dilemmas related to service delivery by humanitarian actors.

Background

The extent to which research evidence is transformed into field-level action is an important question within humanitarian settings. Academic researchers, humanitarian actors, and the people benefiting from an improved humanitarian response are all concerned with ensuring that empirical evidence is implemented appropriately.

Most disasters such as humanitarian crises and conflicts have become enmeshed in migration, climate change, and structural violence in an increasingly globalized and polarized world (Leaning and Guha-Sapir, 2013; Spiegel, 2017). While the contexts in which humanitarian agencies work are increasingly complex, the need to ensure that field responses are evidence-based is widely recognized by humanitarian actors, academics, and donor agencies (Blanchet et al., 2017b; Zachariah and Draquez, 2012; DFID, 2014; Kohrt et al., 2019). Based on this recognition, two approaches have emerged in the literature.

The first approach considers the production of research itself, by improving the quality and increasing the quantity of the evidence yielded. Calls for stronger evidence involve more robust methodologies through counterfactual analysis (Ager et al., 2014; Kohrt et al., 2019) and qualitative approaches to compensate for the difficulty of determining causality in humanitarian settings (Hofman et al., 2004; Frerks and Hilhorst, 2002; Dijkzeul et al., 2013a). The improvements needed also entail a better coverage of public health issues and geographic areas, as well as enhanced ethical processes (Tol et al., 2020; Ford et al., 2009). Such initiatives were developed by academics to create resource centres (Blanchet et al., 2017b; Checchi et al., 2017; Allen and Clarke, 2015) and by humanitarian actors such as Médecins Sans Frontières (MSF) to develop pools of experts in the field (Kumar et al., 2016; Tripathy et al., 2018). However, efforts focusing on producing more evidence and

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of better quality have been limited by the fact that research alone is unlikely to be sufficient to modify the field response by itself (Darcy et al., 2013), combined with the recognition that is difficult to discern what field responders value as evidence, what they use for decision-making, and what they are able to translate into action (Knox and Darcy, 2014).

Based on these acknowledged limitations, the second approach emerges from the need to understand how decision-makers and field actors use evidence for policymaking, for advocacy and for practice (Tripathy et al., 2018; Dijkzeul et al., 2013b). This effort requires understanding whether the evidence generated had meaning for the end users -- in a response context that necessitated making rapid adaptations and strategic choices (Mayne et al., 2018). This second approach consists of donor agencies and academic actors producing guidelines to ensure that evidence was synthetised and available in the field (DFID, April 2016, Blanchet and Duclos, 2018); and of researchers and humanitarian actors ensuring that research findings were adapted to the specific decision-making needs of humanitarian actors (Mayne et al., 2018; Harries et al., 2018; Allen et al., 2018). Additionally, researchers from the academic and humanitarian spheres recognized that it is essential to understand what it takes to bring about change at systemic levels and who has the power to do so (Bradt, 2009; Bowsher et al., 2019; Khalid et al., 2020). Combined, all these efforts have contributed to greater quantity and better quality of the evidence produced and have increased the likelihood that this evidence informs decision-making by humanitarian actors. However, whether these efforts result in changing field responses over time, remains relatively unexplored to date (Bennett et al., 2017; Généreux et al., 2019). How can the persisting gap between the evidence base and the humanitarian response be understood? Should the initiatives leading to the production of a stronger evidence base, the use of this evidence for decision-making, and the resulting response be viewed as separate efforts? If not, what might the intersections between and among these efforts implicate?

In this paper, 'evidence' is used interchangeably with the terms 'research recommendations'; and 'integration or uptake of evidence' is used alternatively with 'implementation'. Finally, 'context' relates to the specific social, economic, political, or historical dimensions of the response in humanitarian settings. When producing research, contextual features can be seen as a being too specific and leading to an apparent lack of generalizability. However, if one considers the production, use and implementation of evidence as a connected set of processes, the specificities of a humanitarian context become crucial to anticipating how evidence might be implemented (May et al., 2016; Dijkzeul et al., 2013b). While humanitarian settings are distinct, they share common features such as disrupted social, political and security circumstances which create a tense and often unpredictable environment for conducting research. Further contextual specificities relevant to the research process in humanitarian settings include established power differentials, the notion of politicized knowledge, and the fact that the research process itself is not likely to be or be perceived as neutral (Sibai et al., 2019). Data collection, analysis, and the dissemination of research findings are potentially invasive processes exacerbating the power differentials related to unequal distribution of knowledge in such settings (Bowsher et al., 2019). Furthermore, the difficulties of managing a humanitarian operational response often mean that decisions need to be modified frequently based on rapid contextual changes (e.g., volatility in security or population movements) and that programmes and resources may need to be managed in short cycles (Mayne et al., 2018). These disruptive features need to be considered. To date, the literature engaging with humanitarian actors along these lines has found that power differentials, trusting relationships, collaborative aims, and the complexity of motivations must be addressed (van der Haar et al., 2013; Mackenzie et al., 2007).

Such initiatives involve a dynamic analysis of the social process of conducting, using, and implementing evidence in what can take the shape of partnerships (Beran et al., 2016; Kohrt et al., 2019).

Based on these considerations, this paper explores how research findings for public health were implemented collectively by actors within one of the oldest humanitarian organisations - the International Committee of the Red Cross (ICRC) (Palmieri, 2012) - in Myanmar and in Lebanon. Recognizing the need for evidence to guide the field response, the ICRC sometimes partners with academics to obtain more comprehensive evaluations and to promote institutional learning (ICRC, 2019). To date, no study has explored how findings resulting from such partnerships are implemented by field teams. This paper will analyse the implementation process from two research partnerships conducted within the ICRC health departments. The first partnership aimed to assess the impact of physical rehabilitation programmes on people's economic status and quality of life in Myanmar with the London School of Hygiene and Tropical Medicine (LSHTM) in 2016. At the time of the study, Myanmar had recently elected a civilian government while its population remained burdened with poverty, landmine casualties and unintentional injuries (Mactaggart et al., 2019). The research was led by the academic partners while the ICRC increased its supports to national physical rehabilitation services. The second partnership investigated access to primary healthcare for conflict-affected Lebanese and Syrian women with the Harvard François-Xavier Bagnoud Center for Health and Human Rights in 2016. At the time of the study, Lebanon was hosting the highest per capita ratio of refugees worldwide within its fragmented health system (Hamadeh et al., 2021; Blanchet et al., 2016). The research partnership was conducted jointly by the academic partner, national authorities, and the ICRC, following three years of stable programme implementation (Leresche et al., 2020). Both research partnerships resulted in internal reports and peer-reviewed publications (Truppa et al., 2019; Mactaggart et al., 2019; Blanchet et al., 2017a).

This paper aims to identify the mechanisms that influenced research implementation by ICRC actors collectively in the field. This paper will: (1) examine the implementation mechanisms and results of these two research partnerships by independent academics; and (2) present a critical discussion of the results with collective input from academic and ICRC actors who were involved either in the primary research partnerships or in this comparative study.

Methods

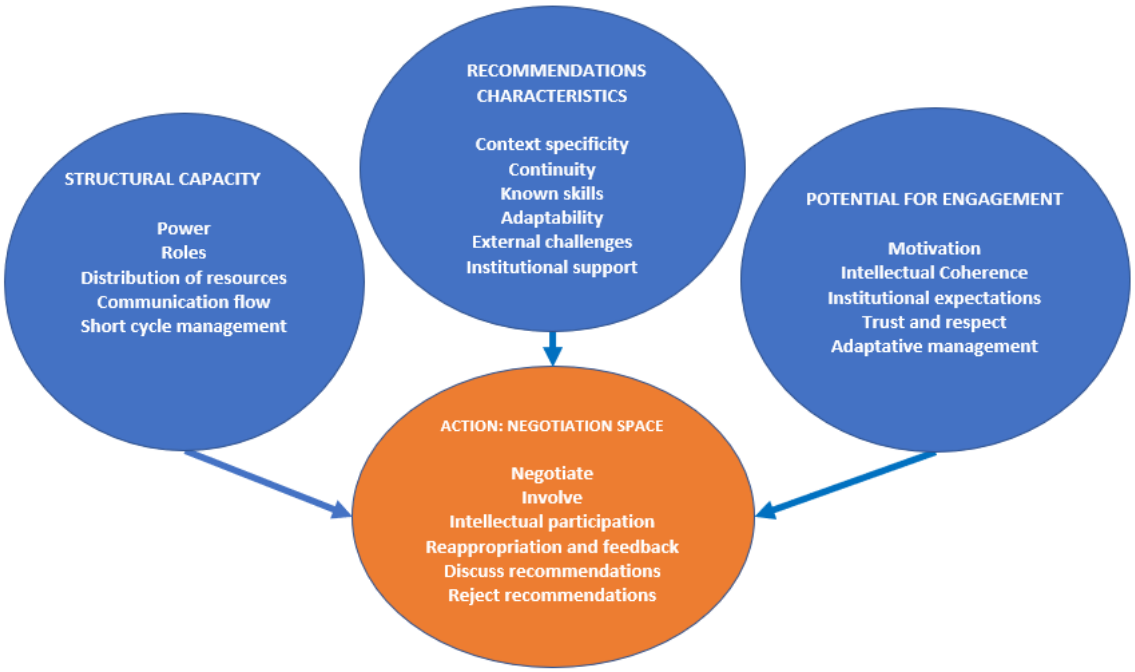
Conceptual framework based on implementation theory

To understand what factors influence field actors to implement research recommendations in humanitarian responses, it was necessary to assess simultaneously who was involved at different levels, in what range of organisational roles, and within what existing collective engagements. In this situation, the general theory of implementation provided a strong basis to capture and connect the different aspects of what might influence the implementation of evidence in the context of a humanitarian organization and setting (May, 2013; May et al., 2016). The power of this analytic frame allowed for the simultaneous consideration of two sets of limitations: (1) those imposed by the organisational and humanitarian setting (the context); and (2) those related to the research recommendations themselves (the object).

Within the framework of the general theory of implementation and in this paper, 'structural capacity' is understood as the institutional roles, the power attached to each role, the access to specific

resources, and the influence of human resources turnover within the ICRC. The limitations imposed by the 'recommendations' themselves are assessed in terms of contextual feasibility, cultural appropriateness, and continuity. The 'potential for engagement' that actors have is understood here as their intrinsic motivation, their sense of coherence while integrating research findings, and the trust expressed by actors in proposing a change. The 'action' itself is the space in which research recommendations might be discussed and the implementation process negotiated. Based on these considerations, an implementation model adapted for humanitarian settings is presented in Figure 1.

Figure 1. Adapted Implementation Model to integrate evidence in humanitarian responses



Source: adapted from C. May "Towards a general theory of implementation", Implementation science, 2013

Based on this model, different investigative tools were combined to collect and analyse data. Each tool is described below.

Social Network Analysis

Social network analysis allows for the examination of the interactions between actors in a holistic and dynamic way, which has proved crucial to understanding the structural capacity for collective action (Hanneman and Riddle, 2005). First, the criteria for including actors in either research network were defined. ICRC actors employed between 2016 and 2019 were included (anonymized and given numbers) if they had initiated the research or disseminated the results or had institutional responsibilities for the recommendations made (based on documented organizational roles). Second, data on actors' features were collected in existing documents to define a range of 'attributes' such as their 'role' or 'geographic location' – coded as binary or categorical variables. Third, the nature of the relationship between actors in the network was defined. Planning ties were used because such organizational interactions allowed for the capture of the formal spaces that actors could use to integrate research recommendations. Planning ties were coded for presence (1) or absence (0) of a tie for each full network if actors attended organizational planning meetings jointly, or when they had a direct hierarchical relationship and overlapped for one month. Once the network boundaries,

actors 'attributes, and the nature of the tie were defined, a graphic representation of all actors involved and their ties was created using UCINET Netdraw (Borgatti et al., 2002). Actors' attributes were displayed in the graphs depending on the questions to be answered in the analysis.

Document review

Decision-making power is distributed from the ICRC headquarters to the field through a complex web of operational managers and technical (e.g., health) actors. To become implemented, research results must be processed collectively from problem analysis to agreement on objectives, on monitoring indicators and on specific budget lines. A retrospective thematic analysis of existing planning and monitoring documents was used to examine what happened to the research recommendations as they began to flow through the ICRC institutional planning. In order to compare how recommendations appeared for each partnership, three key components were compared. First, the characteristics of the recommendations were assessed in terms of the skills needed, operational continuity, and institutional support. These characteristics were extracted from planning documents and institutional policies and were discussed in interviews. Second, in order to understand who was aware of the research findings in each partnership, a retrospective mapping of the diffusion process was documented, including the roles of each actor, the date, the type of communication and the sender. Finally, to compare the implementation status in each setting and over time, four yearly planning and monitoring cycles were analysed thematically. One table per partnership (Myanmar and Lebanon) was built in order to cross-tabulate each recommendation with four years of planning. Quarterly and annual health reports allowed to assess whether recommendations guided what was monitored. This time frame accounted for the time expected in which to compare the results and observe a change in implementation after the study was conducted (2016-2019).

Qualitative research

Semi-structured qualitative interviews were conducted between June and October 2019 to understand the constraints that actors felt they had, their perceptions of individual or collective initiatives, and their trust in proposing a change. An interview guide was pilot tested with three ICRC field respondents who were familiar with one of the partnerships. As a result of the pilot, a summary of the key research recommendations was shared in the middle of the interview for subsequent interviews. Sharing recommendations ensured that all participants could refer to them specifically, as some interviewees did not recall them or were not aware of them. In total, nine actors were purposefully selected from each research network representing a comprehensive range of geographic positions and of roles. Three of these actors (from both networks) did not respond to three follow-up invitations to participate. The reason for non-response was not explored further. In Lebanon, eight actors were interviewed and for Myanmar seven actors were interviewed (15). Signed informed consent was obtained from all participants prior to starting the interview. An initial deductive thematic analysis was performed based on the theoretical framework, which was then compared with the results from an unfettered and inductive exploratory analysis. The comparison between both approaches allowed for the identification of additional themes, such as missed opportunities for understanding buy-in or (in)action. A comparative thematic analysis was not performed between both partnerships, to ensure the anonymity as the number of actors included was small.

Table 1. Roles and attributes of actors interviewed

Gender	Role	Location	Commissioning	Recipient of recommendations	Role to implement	Planning
7 Female	6 Management	5 Headquarters	4 Commissioning	7 recipients of recommendations	2 Do not implement	1 Not tied in for planning
8 Male	9 Health	4 Delegation	11 Not commissioning	8 Not recipients of recommendations	13 Implement	14 Tied in for planning
		6 Sub-Delegation				

Ethics

Ethical approval was received from the Ethics Committee of the LSHTM, by the ICRC Health Unit in Geneva, and by each field Delegation. Both primary research partnerships, which were used to build the comparison for the case study, had previously undergone an academic Internal Review Board process further approved by national authorities (Truppa et al., 2019; Mactaggart et al., 2019).

Results

In this section we compare the constraints on research implementation imposed by the organisational context; the challenges related to the characteristics of the research recommendations; what allowed actors to engage collectively in the process; and how key challenges to research uptake were negotiated in each partnership.

The organisational constraints to be negotiated in each network

First, the origins of the research varied. For Myanmar, the research questions were rooted in a programme evaluation (conducted by the LSHTM). For Lebanon, the questions related to global initiatives (Zeid et al., 2015) and to the low Antenatal Care (ANC) attendance rates captured in field monitoring (Truppa et al., 2019). Second, the control over financial resources diverged. The amount attributed for Myanmar was higher (20% of the programme direct costs) and managed by ICRC headquarters. For Lebanon, the financial envelope (10% of the programme direct costs) was managed by the field health team. This field proximity to the budget allowed the team in Lebanon to adapt to changes imposed by the shifting humanitarian context, which was difficult for Myanmar. Third, the structural characteristics of each network differed. Both networks presented a central group of influential actors positioned in the field. The central actors highly connected in the field are referred to as the 'central group of actors', whereas actors less connected around them are referred to as 'the periphery'. We observed that the level of separation between headquarters and the field (Figure 2); the continuity of the number of actors from the field initiating the research initiative (Figure 3); and the proportion and type of actors who were aware of the research findings (Figure 4) differed between the two partnerships.

Figure 2. Actors' geographic positions (2017-2019) in the field, at the headquarters or switching between both locations

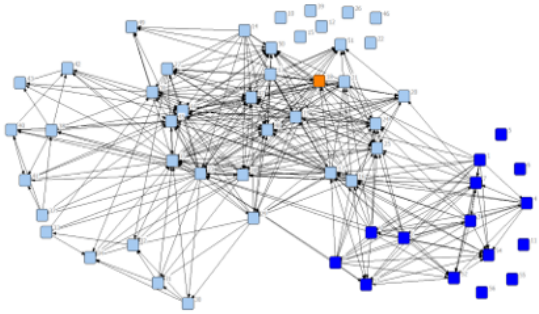


Figure 2a. Myanmar research network 2017-2019: 322 planning ties and 56 actors. Attributes by "geographic area". One actor switches positions between the field and headquarters.

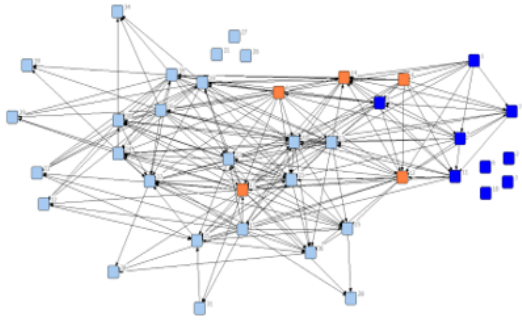


Figure 2b. Lebanon research network 2017-2019: 201 planning ties and 39 actors. Attributes by "geographic area". Five actors switch position between the field and the headquarters.

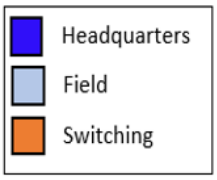


Figure 2 shows that the main difference consists in the level of separation between actors from the headquarters and actors from the field in each network. For Myanmar, the headquarters and the field are two separate sub-groups with one actor who switches position. For Lebanon, five actors switch positions in a structure that is much more fluid.

Figure 3. The number of actors commissioning the research and remaining tied in for planning (2017-2019).

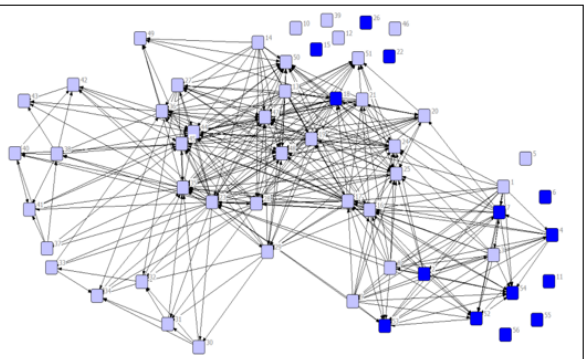


Figure 3a. Myanmar longitudinal graph 2017-2019. Attributes by "commissioning". Nodes of equal size. Planning ties.

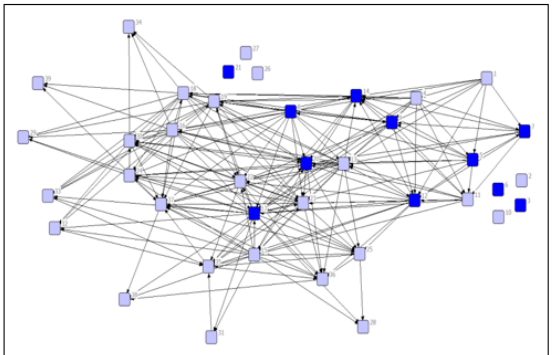
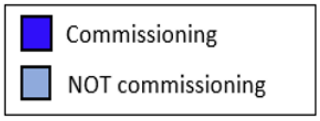


Figure 3b. Lebanon research network 2017-2019. Attributes by "commissioning". Node of equal size. Planning ties.



In terms of actors' turnover, Figure 3 shows that Myanmar had more actors who initiated the

partnership (commissioning) and were left out of the planning (7/14), compared to Lebanon where most actors involved in commissioning remained for the subsequent planning (8/11). In both partnerships, actors from the periphery were absent from the commissioning process.

In Figure 4, 'recipient' denotes those actors who were aware of the research recommendations following the dissemination. The research results reached actors differently in terms of the proportion of actors aware of the findings, and in relation to the roles of the actors missed by the dissemination process. Figure 4 shows that 52% of the actors are recipients for Myanmar, compared to 66% for Lebanon. In addition, for Lebanon, almost all the central influential actors were recipients, which is not the case for Myanmar where central managerial (6) actors and health central actors (4) were missed. This difference led to fewer influential actors with an understanding of the rationale of the research for Myanmar. In contrast, a higher number of headquarters actors were missed by the dissemination process for Lebanon.

Figure 4. The number and type of actors that were aware (recipients) of the research findings between 2017-2019

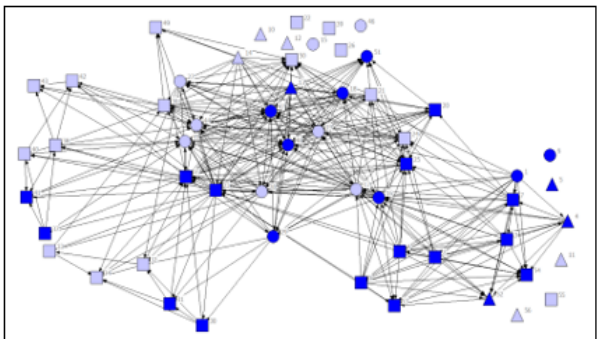


Figure 4a. Myanmar longitudinal graph 2017-2019. Attributes by "recipient" and by "role". Nodes of equal size. Planning ties.

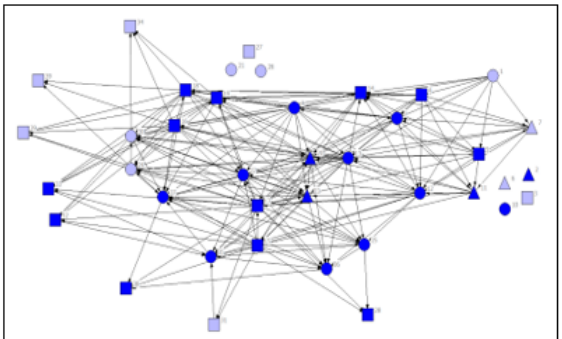
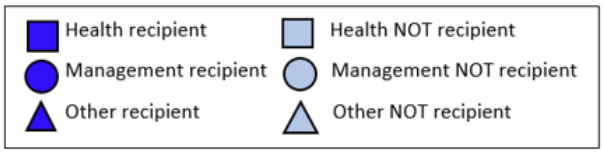


Figure 4b. Lebanon research network 2017-2019. Attributes by "recipient" and by "role". Planning ties.



Some structural constraints, however, were similar in both partnerships. Technical health actors in the periphery were less aware of the research recommendations. Another similarity was the structure of the planning tool that could create a sense of competition between or within departments, which traditionally incentivizes planning in silos. The third common constraint was a budget subject to yearly approval, which created uncertainties around the financial capacity to implement longer term objectives. Overall, these findings suggest that Myanmar might face specific challenges to retain an institutional memory within the central group of actors, since half of the actors initiating the partnership had either left before the next planning started or were not connected through planning at all. In Lebanon, the headquarters and field actors were more connected for planning, in part because five actors switched positions in the process (Figure 2b), and because most actors involved in initiating the partnership remained for subsequent planning (Figure 3b). The fluidity of the information, the knowledge of the initiative, the control over the budget, and the level of continuity in terms of human resources were all stronger in the Lebanese partnership. In both partnerships the buy-in from health technical actors at the periphery of the networks would need to have been negotiated, a possible competition for funds might have led to collaborative

limitations, and recommendations with longer-term engagements might have been more difficult to secure within a yearly budget.

Constraining factors presented by the nature of the research recommendations themselves
Next, we analysed the features of the research recommendations. These features were identified by the actors themselves.

First, actors mentioned the importance of institutional coherence. Both initiatives were based on institutional questions such as '*how can we make the invisible visible at the primary level of care?*' or *'how can we measure the impact of physical rehabilitation programme in people's lives*?'. Recommendations that were supported institutionally brought a sense of shared responsibility. '*This is something I find really interesting, that we have to come up with recommendations that are part, should be part of our identity'.* Institutional coherence could also emerge from the field experience: '*And to some extent there are also some recommendations that were there before, that confirms a direction that was taken before'.* In interviews, the coherence with institutional policies or field experience supported a sense of shared responsibility. In contrast, when lack of coherence was perceived, it appeared to be diverting the focus and the resources.

Second, the perception of control in the implementation process was key. Most actors perceived recommendations that were situated outside the close control of the ICRC as challenging:

'*….those are things that are not only up to the ICRC to influence, those are the sort of issues that go beyond the influence of the ICRC, so there you need to come up with a policy approach, you know, discussions with the authorities, public communication (…..) things are linked to the system as such, and to the perception of the population of their rights and their duties and things like that, you know, that goes way beyond what the ICRC can do'.*

Actors also expressed a weaker sense of control when recommendations were related to approaches that necessitated working towards both short and long term aims (ICRC, 2016), and those that might necessitate finding a subtle balance between immediate substitutive mechanisms and longer term capacity building: *'And we cannot be in the substitution mode ourselves, right? (….) because if we do the substitution mode, then we are not going to improve, we are not going to strengthen the capacity of the system, of the* [*XXX*] *to act and face the workload'.* Having a sense of control or, in the absence of it, being able to discuss and agree on the risks taken was perceived to be crucial.

Finally, in both networks, many recommendations were perceived to lack specificity:

'*I mean, well the first thing is that they seem quite, how would I say, I think maybe not very context specific, but you know, those are recommendations that can be made on many programmes that we have, across countries*….'.

Several actors also mentioned the relevance of contextual appropriateness: *'Yes, but you know maybe somebody can do the study, but I am having the feeling that it should be someone really literate with the context, it should not only be a foreigner from whatever region of the world, European, African or whatever, it should be someone from the context'.* Specificity of experience and cultural appropriateness were perceived to enable the uptake of research recommendations.

Why actors engaged in the research implementation process

In this section, we present what actors stated was necessary for them to engage in the implementation process; and how the nature of each partnership might have constrained the potential that actors had to negotiate the possible limitations. Several factors are perceived to influence the engagement in implementing research recommendations. The first is an early and regular involvement in the research process: '*So, I could have been involved more frequently, in more steps*.' Continuity in the process of sharing the information is also crucial and expressed by most actors: *'More often, in a lighter way, rather than, in a heavy way all of a sudden'.*

Once involved, actors often relate the research to their field experience: '*I think while we engage in those types of exercises, is kind of…to systematize, and probably also to get a confirmation of what we already know. I think very often we have kind of anecdotal arguments on a number of things, and I think this is where research can help us to really confirm things that we see, but maybe see in an anecdotal way*'.

Another factor influencing the potential to engage is related to the dissemination of the findings. Face-to-face presentations mobilize actors around the operational response: '*I got feedback through presentations that were done in* [*XXX*]*, where we were briefed about the content and outcomes of the study, which I remember was very much focusing* [on *XXX*] *and one of the main factors was* [*XXX*]*, so there was something we could do as an organization.*'

Face-to-face presentations also create a discussion space: '*It was the sharing, and it was followed by a kind of first discussion on how and what we can do based on those results. So, it was already a bit more than a sharing'.* Oral presentations of the results allowed actors to clarify issues: '*It was actually during the presentation. It was there because as we said the draft report was over* [*XXX*] *pages so difficult to take out was the salient points, so it came clear in this* [*XXX*] *presentation in* [*XXXX*]*, what were the findings, and what were the follow up of the recommendations, the changes that had to be made'.*

In contrast, e-mails are often related to issues of recall or over-saturation: '*No, I had never heard about it before. Or maybe, maybe I would not say that I was not getting an email, but as you know (….) there are so many emails (…) and maybe…we are receiving so many of those emails for some study, research, that sometimes we don't even reply'.*

Finally, the timing of sharing research results was key. Delays in sharing results brought a sense of disconnect: '*So, there is a matter of time. From the moment when the research was conceived, to the moment when it was conducted, the moment we had clear results, and the moment we had clear recommendations, the time lapse was huge'.* Delays in sharing comprehensive results also led to not involving actors who would implement the recommendations in the field: '*I think there was a gap. Normally I arrived after this was already given to the field, but there was always, when you were going to the field, people requested on having something more to know about* [*XXXX*] *and there was always the issue that we have to wait a bit before to share the complete report….'*

Building on what actors said was relevant for them, we now look at how such factors were shaped in each partnership. First, at the beginning of the collaboration, both field teams were engaged differently. A field scoping visit conducted by the academic team to Lebanon allowed the ICRC field team to analyse monitoring results and existing literature to refine the research question. In contrast, for Myanmar, the research question was formulated at headquarters and was strongly related to a

funding initiative which was not of immediate concern to the field team. Second, the modalities through which the findings were shared also differed. In Myanmar, the actors were informed of the research findings (the evidence) less frequently and mainly in a written form (i.e., email); and two external diffusion initiatives did not involve ICRC actors. In Lebanon, most of the initial dissemination took place through face-to-face presentations and then switched to written modalities. The opportunities to discuss the recommendations early in the process were higher in the Lebanese network. In terms of timing of external peer-reviewed article, both settings took between 18 and 24 months to publish an article. Figure 5 shows who was involved in the diffusion sessions and how frequently.

Figure 5. Actors recipient of the research recommendations by role and by geographic position

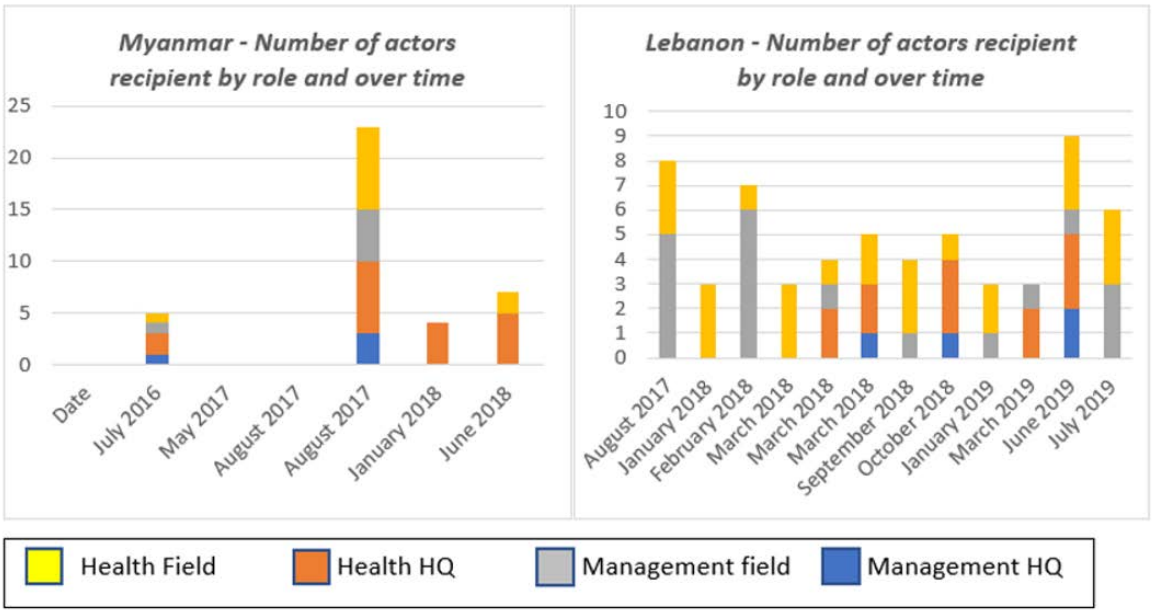


Figure 5 shows that the dissemination process for Myanmar from the onset involved managerial and field actors including both headquarters and field levels. For Lebanon, actors at the headquarters were involved much later. The frequency of the dissemination sessions, however, was higher in Lebanon. The main challenge for Myanmar was the lack of discussions around the results, combined with a lower frequency in diffusion activities. For the Lebanese partnership, the late involvement of actors positioned at the headquarters constituted an important challenge.

How key challenges to research uptake were overcome

In this section we look first at what different groups of actors said they could do to integrate the evidence in the field response. Then, we analyse the level of research implementation in each partnership.

Most actors, including peripheral health actors, expressed the need to have an important space in which to propose changes, the capacity to undertake initiatives, and the ability to propose modifications. However, in interviews, actors with different roles mentioned missed opportunities related to the lack of discussions regarding the constraints embedded in the implementation. Managerial actors at the headquarters conveyed that they were able to discuss the broader political

decisions related to the implementation if they were engaged early on and felt they could trust the validity of the recommendations made. Managerial field actors were constrained to '*make priorities among priorities all the time',* negotiating between what was relevant and what was feasible. These findings confirm the importance of engaging on issues of feasibility early on.

Health actors overall said that they had an important space in which to facilitate the discussions, build trust, or negotiate the resources needed to modify the existing field response. Health actors positioned at the headquarters perceived that they were in the right position to identify opportunities and the alignment of influential actors. Health actors embedded at the centre of the planning process in the field perceived that they could create opportunities to integrate recommendations, provided they were engaged, sufficiently skilled, and able to discuss the implications of the results with their managerial counterparts at different levels and in the long term.

These results suggest that a sense of autonomy is expressed by actors in both partnerships. Keeping these findings in mind, we look now at how many and to what extent the recommendations have been implemented. The main results of the implementation status have been divided into three categories for each recommendation:

a) 'Normalized' i.e., integrated in the planning, and implemented.
b) 'Adopted' i.e., integrated in the planning, and proved difficult to implement.
c) 'Rejected' i.e., not integrated in the planning, and not implemented.

The uptake levels have been analysed in relation to three prior characteristics (May and Finch, 2009) that each recommendation required, which include:

a) A set of technical skills compatible with the recommendations made – known skills
b) The ease to integrate them in existing plans and field response -- continuity
c) Institutional support for priorities or policies-- institutional readiness

Implementation outcomes for Myanmar

Table 2. Research uptake levels in ICRC's Myanmar response (as of July 2019) *

Recommendations made for Myanmar	*UPTAKE results*	*Known skills*	*Continuity*	*Institutional Readiness*
1. The vast majority of the impairment is traumatic and preventable through risk prevention policies.	NORMALIZED	Yes	Yes	Yes
2. Loss of job and income is a significant concern among those interviewed and have catastrophic socio-economic costs associated with acquired physical impairment in Myanmar		Yes, in the Economic Security department	Developing by Economic Security (EcoSec)	Yes
3. Service support is needed to persons with physical impairment		Yes	Yes	Yes
4. Promote the access to alternative vocational training and opportunities to allow job matching, possibly through community-based rehabilitation programs	ADOPTED	Yes, in EcoSec	Developing	Yes
5. Women are under-represented and might be less likely to seek healthcare and access appropriate services: further research would be needed.	REJECTED	Developing at headquarters	Developing at headquarters	Yes
6. Psychological adjustments to amputation affect mood, body image, social participation, independence, and identity		Yes	No	Yes
7. Quality-of-life tools used did not capture specific issues related to amputation and physical functioning, and there are none identified in the literature, suggesting this is a gap for further research.		Developing	No	Yes

*As observed in the 2018-2019 planning timeframe. However, while discussing these results with the field teams, several important changes had taken place for the planning of 2020, namely for the of the inclusion of women into programmes and in terms of mental health and psycho-social support. This evolution shows that measuring such outcomes has to account for sufficient time for change.

For Myanmar it is unclear how much the research findings were specific enough and whether they were used to modify the yearly problem analysis of the 2017 and 2018 planning documents. That lack of use for the problem analysis is what one would expect when the actors involved did not have the opportunity to discuss the results or negotiate the constraints related to the implementation. Nevertheless, three recommendations have been 'normalized', all of which aligned with existing objectives, known skills, and operational priorities. The normalization took place through increased Mine Risk Education (MRE) activities, a significant operational support to increase the access to and cost of rehabilitation services, and the gradual consolidation of the outreach network. Recommendations necessitating an internal collaboration, such as the recommendation on prevention, were based on a previously established internal agreement between the physical rehabilitation programme and the Weapon Contamination (WeC) sub-units. Among the recommendations normalized were those relating to the 'support to services', which led to a substantial increase in the number of physical rehabilitation structures supported through a considerable field effort.

In contrast, recommendations that were 'adopted' and difficult to implement all represented a discontinuity and were not translated into a new objective in the planning document up to July 2019. We see here that the limitations imposed by the lack of information, the low level of engagement of the actors in the field and the internal limitations of the planning tool were difficult to overcome in this partnership. Also, recommendations that were 'rejected' for Myanmar fell outside the field analytical and operational continuity of the physical rehabilitation programme, despite having institutional support. Alternative responses to what represented a continuity at the level of the field were not integrated into the written analysis, field planning, objectives, or budget. Recommendations that were rejected hit important barriers, such as the disconnect between the focus of the research, the operational priorities, and the feasibility of mobilizing resources while maintaining an important operational effort to increase service support effectively. For Myanmar, the organisational lack of continuity combined with the fact that key planning actors were not engaged early on led to major difficulties in initiating changes at least at that time, as changes were reported but after the period under investigation.

This research partnership encountered shortfalls: the research question was not anchored in monitoring; the initiative was controlled centrally; and the dissemination modalities allowed few spaces for multi-level discussions. The crucial resource in the field was the alignment of three recommendations with the physical rehabilitation programme focus and skills. At the level of the headquarters these recommendations contributed to better understanding how women access physical rehabilitation services in conflict affected settings (Barth et al., 2020); but this use of the research recommendations appeared directly in the field planning only later on.

Implementation outcomes for Lebanon

Table 3. Research uptake levels in ICRC's Lebanon response (as of July 2019).

Recommendations made for Lebanon	*UPTAKE results*	*Known skills*	*Continuity*	*Institutional Support*
1. Decrease the cost for beneficiaries and ensure financial support	NORMALIZED	Developing	No	Yes
2. Provide incentives to key staff such as midwives and gynecologists		Yes	No	Developing
3. Increase awareness through community-based approaches and outreach		Developing	Yes	Yes
4. Scale up sexual and reproductive health and non-communicable services availability		Developing	Yes	Yes
5. ICRC is in the right place: Stay as ICRC reached out to the most vulnerable		Yes	Yes	Yes
6. Promote trust in the public health system and the adequate drug prescription	ADOPTED	Developing	Yes	Developing
7. Reach out to poor Lebanese		yes	yes	yes
8. Move to a multi-year approach		Developing	yes	yes
9. Tailor to specific needs and expand existing packages for non-communicable diseases (to musculoskeletal conditions)	REJECTED	No	No	Developing
10. Include dental care in the package at the primary level of care and advocate at country level		Developing	No	No
11. Further research on non-communicable diseases among pregnant women		Developing	No	Developing
12. ICRC should share ICRC population- based vision and tool with external actors		Developing	Developing	Yes
13. Donors should adapt funding mechanisms based on results (population coverage) rather than activities (outputs)		Developing	No	Developing

Constraints on research implementation in the Lebanese partnership differed from those faced in Myanmar. The four recommendations that were 'normalized' all relate to a clear problem identified before the study was begun, confirming the importance of allowing research to validate earlier hypotheses, in terms of populations, research needs and evidence base. These recommendations also corresponded to amended planning objectives. Some recommendations that were normalized represented a discontinuity -- such as providing incentives to key staff or decreasing the cost for beneficiaries – and new resources were mobilized during the subsequent planning processes. One of these changes consisted in an entirely new operational objective -- to 'decrease the cost for beneficiaries and ensure financial support' – resulting from an internal collaborative effort. One also sees that three out of four recommendations implemented were supported institutionally.

The four recommendations that were 'adopted' all had three factors in common: A much weaker use of the research recommendations in the analytical part of the planning document; the absence of specific amendment of the programme objectives; and an implementation process that was initiated by field teams but then documented as being interrupted in monitoring reports. When issues were identified without being met by an operational objective, this lack of clarity also led to fewer resources being allocated to bring about a change. Several recommendations that were 'adopted' were heavily dependent on external constraints such as the trust in the public health system, which was perceived by the ICRC field team to be difficult to influence over time. Finally, 'rejected' recommendations were not processed in the planning, either at the level of the analysis or in terms of objectives. Most of the recommendations rejected encountered barriers in terms of organizational and external context. Most of these were outside the ICRC institutional framework and would have entailed a discussion at the level of the headquarters (e.g., to expand the package of health care provided). Recommendations rejected were also related to a set of external operational and political

constraints that characterized the humanitarian setting. Some barriers included issues of complex strategic positioning in protracted conflicts and the problem of multi-year approaches. In Lebanon, the constraint imposed by a late communication of the findings with the headquarters might have contributed to a lack of discussion of broader levels of change.

Discussion

This is the first study to assess mechanisms influencing research implementation within the health department of the ICRC. The use of the general theory of implementation enabled the identification of key challenges and social mechanisms at play while ICRC actors negotiated the integration of research results in the humanitarian response.

Factors that have influenced the creation of a negotiation space

First, the early access to information and the continuous discussions at field level were essential. In this study, recommendations that represented a discontinuity with ICRC field programming proved challenging to implement when influential actors were not involved at different levels and over time. When key actors were not aware of the recommendations, the research use was minimal. The oral diffusion modalities also played a role in allowing a space for discussion, while written modalities did not allow much interactive negotiations. The need to ensure that key actors have clear information for decision-making is documented in the literature (DFID, April 2016; Kumar et al., 2016; Hernandez et al., 2019; Khalid, 2017).

Second, the capacity to account for staff turnover was essential. Both networks were nested within a centralized organizational structure, which narrowed the negotiation space when new staff were not informed. An ongoing capacity to account for and adapt to staff turnover was key to the implementation process. In the literature, the high turnover of staff also relates to the identification of specific actors such as knowledge brokers or entrepreneurs who are able to ensure that information is not lost (Rogers, 1983; Mayne et al., 2018; Zachariah et al., 2012).

Third, the creation of a small cohesive research group allowed for discussion of the results for planning purposes over time. Engaging this technical and managerial group permitted a structural continuity and an open negotiation space. Building engagement over time can allow for negotiation regarding the mobilisation of resources (May et al., 2016; Hernandez et al., 2019) or for bringing different forms of knowledge into the negotiations, which is important in contexts where there is a reluctance to innovate (DFID, 2014; Khalid, 2017; Mezias and Starbuck, 2003; Lewis, 2003). Knowledge sharing and empowerment are also recognized tools to enhance collective commitments (Lok and Crawford, 2004; Lee et al., 2010).

Fourth, the recommendations needed to be specific, institutionally relevant, adapted to the context and discussed. Elaborating the recommendations with field actors allowed for the mobilisation of their experience and knowledge of monitoring results, which increased a sense of continuity and coherence. In the literature, the need for adaptation and piloting is documented (Rogers, 1983; Bennett et al., 2017). The validation process helps to ensure robustness, credibility, relevance, consistency, and rootedness (Hernandez et al., 2019; Knox and Darcy, 2014).

Finally, the major finding is that the potential to engage (understood as the motivations or collective commitments) was pivotal and influenced the other components described above. The need to include actors regularly, at different levels and throughout the process, was essential to sustain the

openness of the negotiation space wherein innovative propositions could be digested. The engagement of actors throughout the network appears to be an overarching factor needed to integrate research recommendations into the routine work of all concerned. When highly connected actors managed the research budget, defined the research question, and formulated the recommendations, these actors could interact in a powerful way and propose innovative responses. Conversely, a weak or absent potential to engage narrowed the negotiation space. The relevant literature documents this importance of ensuring that policy makers and programme managers are engaged regularly in the research process (Mayne et al., 2018; Cairney and Kwiatkowski, 2017; Zimmerman et al., 2016). The notions of trust, creativity, collective learning, cognitive immersion, and widespread participation are key supports to the innovation process. (Lok and Crawford, 2004; Lee et al., 2010; Lawler, 2005).

Implications and trade-offs for the humanitarian community

The findings suggest that organizational challenges need to be addressed early on. Key actors should be involved actively from the onset, while intentionally mixing roles in relation to commissioning, planning, and implementing the findings. This study shows that a lack of engagement of actors is possibly linked to failures in addressing human resources turnover or in engaging with discontinuity even when there is an institutional commitment. Instead, structural constraints can be modified, and innovative approaches piloted when a range of actors are engaged across horizontal and vertical power structures. One key limitation is time and expertise: Those who are the best at leading in the field are not necessarily from research or academic backgrounds and have extremely busy roles, so they may need support and dedicated time to engage fully. Active involvement might also mean that a field-led research agenda would be needed to drive programme change. Another limitation is internal inwardness, wherein the ideas challenging the previous norms remain difficult to discuss critically, especially when field actors are dealing with competing operational priorities within a tense humanitarian response. A related constraint is the inclusion of recommendations that go beyond the control of health professionals in contexts when notions of empirical research and public health cannot be transmitted quickly. There may be the need to incorporate such notions institutionally and discuss these throughout the research process.

These results also mean that a negotiation space needs to remain open over time. For the academic partner, this would suggest discussions with programme planners and policy makers in order to interpret findings and to guide the recommendations. Such an approach is not straightforward as there might be logistical, short-time funding or language barriers to address. For the humanitarian organization, to bring research results into the routine monitoring process there is the need to create an institutional 'research culture' that would allow any internal actor to be aware of the importance of relevant research findings. A stronger research culture also would imply trust in empirical methods as core parts of the usual working modalities. A stronger consensus would also need to be built between field staff who implement the findings and those who ensure ethical and programmatic coherence centrally.

Finally, the results convey that the recommendations need to be specific and adapted to the context and should be elaborated with the inputs from field actors at the very beginning. Involving key actors early on seems to be the only way to make sure that evidence can be realistically implemented in the field. A robust effort to strengthen the capacity of such actors would need to be included in the design and budget of the research process.

Strengths and weaknesses of the study

The weaknesses of this study include the retrospective data collection and the absence of possible comparison of the qualitative accounts between the two partnerships in order to preserve anonymity. These limitations were compensated for by the use of mixed methods to combine the different facets of the implementation process. The interview purposive sampling may also have inadvertently led to an underestimation of the barriers to research implementation that might not have been captured. Another weakness was the position of the lead author and researcher, who had past organisational relationships with actors included in both networks. This issue was partially controlled by the timespan between the end of the last field assignment of the main researcher with the ICRC (July 2018) and the start of the comparative study (July 2019); by a clear role limited exclusively to conducting the research; by using recorded and transcribed interviews; and by use of a consistent and systematic methodology.

An important strength of this paper is that the results were discussed by the co-authors, who represent a range of experiences in humanitarian settings in general and in the context of these two partnerships in particular. Another strength is the consideration of a full network of actors, permitting a retrospective analysis for each partnership and over a long period of time. Finally, the different tools used in a systematic way supported the triangulation of the results. This approach permitted to present comprehensive results. Qualitative interviews revealed that there were opportunities missed to discuss the results in both partnerships--an observation that was visible from the results but difficult to understand through the retrospective documentation alone. The tools combined permitted to develop an extensive, replicable, and in-depth analysis of the implementation process in each partnership.

Unanswered questions

This study left several questions unanswered. First, it is uncertain whether an actors' potential to engage is more powerful within adaptative management and in unstable contexts such as humanitarian settings, compared to more stable contexts where changes might be slower to take place. In relation to this uncertainty, the existence of an early appreciation by humanitarian actors of what is negotiable is possible. The actors involved in this study showed that they were able to integrate recommendations or to reject them if these seemed to be threatening the equilibrium of the response capacity. Opposed mechanisms emerged from within the same network that could not be attributed solely to the characteristics of the recommendations. The either fixed or fluid notions of what is or is not negotiable, what these notions consist of, and how these issues can be overcome in order to integrate research results in the field responses would need to be explored further.

Second, the influence of the broader context was constrained by the organizational focus of this study viewed through the lens of the characteristics of the recommendations. The influence of ethical dilemmas or power differentials should be ascertained further, as they remain unexplained in the literature (Knox and Darcy, 2014; Bowsher et al., 2019). More specifically, how power is distributed within the implementation process needs to be determined. For instance, power imbalances might become manifest through the adoption or rejection of research results. In the literature, contextual features such as insecurity and power differentials could explain why evidence might be rejected (Bradt, 2009; Dijkzeul et al., 2013b). Negotiating implementation might involve engaging in a debate beyond inherited power structures such as gender discrimination (Patel et al., 2020; Lokot, 2019), colonial legacies (Singh et al., 2021; Barnett, 2011) or conflict-related political,

economic, ethnic, or social inequalities (Sibai et al., 2019; Oliver et al., 2019; Shdaimah and Stahl, 2012; El Achi et al., 2020, 2009). The organization's lack of political will and/or short-time programme and funding cycles can also possibly affect how evidence is implemented in such settings (Knox and Darcy, 2014). There is also the sense that humanitarian organizations may absorb knowledge only within their own paths of social construction. Some of these features might be revealed and emerge from the implementation process itself.

This study only partially explains the success or failures of the implementation process. As we see in both partnerships, the rejection of several recommendations might be linked to what is relevant, feasible and negotiable; or to the capacity to manage the uncertainty as to whether or not the evidence used is sufficiently strong to withstand the uncertainty of unstable humanitarian settings. The meaning of these findings would need to be explored in a different humanitarian organisation and in the literature. This wider evaluation would allow one to confirm whether the gap in evidence-based humanitarian responses has so far been only partially met by strategies focusing on producing evidence and on ensuring evidence use for decision-making. If so, this confirmation leaves open the possibility that the implementation part of the process has only begun to be explored.

Conclusions

Building humanitarian responses based on empirical research results is more than producing additional evidence, higher quality research, or including stakeholders in a dissemination mechanism-- even if such efforts are key and are embedded in the overall initiative. Actors involved in implementation have a central role to play collectively, a role which is closely related to whether these actors will negotiate the barriers encountered in the implementation process or not. Further research is needed to understand the social interactions, as well as the internal and external constraints within humanitarian organisations and in humanitarian settings, that influence research implementation. For the academic research partner, there is often a gap between the academic 'end point' of writing a report and publications and being able to follow up to see which recommendations are implemented and to what degree. For the humanitarian actor, there is an awareness that a critical appraisal of how evidence is implemented makes a difference, since research that cannot lead to changes in practice might not be justified in the first place. Establishing a connection between research and implementation within a given humanitarian response offers a route to building a negotiation space, whereby academic partnerships in humanitarian settings can bring methodological approaches to the humanitarian field, share applied findings with the academic community and ultimately provide a better response for the people affected by the crisis.

This study demonstrates that both academic research and humanitarian communities are keen to know whether evidence is incorporated into humanitarian responses, especially in the medium- to long-term. Funding options that allow for continued integration of research with humanitarian field response are needed to ensure that that some of the barriers identified in this study can be addressed. However, the question of whose responsibility it is to ensure that this linkage happens is beyond the scope of this study. Future research should explore factors such as ethical dilemmas and power imbalances that are not fully controlled by either academics or humanitarians to ensure that research efforts to fill evidence gaps in humanitarian responses are not undertaken in vain.

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Data Availability Statement

The synthetized data that support the findings of this study can be available from the corresponding author upon request and upon approval from the ICRC.

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