



Integration of Implementation Research in the Development and Implementation of COVID-19 Public Awareness Raising Interventions: A Qualitative Study

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Introduction

Implementation research (IR) plays a pivotal role in advancing global health efforts. It serves as an invaluable tool that aims to effectively address and enhance various public health issues by establishing a connection between research findings and various practical applications such as developing health related policies, activities and programs.¹

By bridging the gap between research and action, IR contributes to the successful implementation of evidence-based interventions and activities, ultimately leading to improved health outcomes.^{1,2} Adapting the results of the IR will provide the opportunity for different policymakers, practitioners, and stakeholders to make efficient and practical decisions and strategies. Moreover, incorporating research findings into practice might contribute to the improvement of the developed interventions and policies in terms of being more effective and tailored to the specific health needs of target populations within their cultural contexts.^{3,4}

However, regrettably due to some existing gaps this concept remains a relatively neglected area. According to Theobald et al.¹ one of the gaps is in terms of comprehensive documentation of IR as well as thorough investigation to learn more regarding the results and insights which are yield from the IR. Moreover, in this concept is yet not very clear and familiar for some practitioners and stakeholders which results in lack of allocating sufficient investment in IR activities.⁵

The objective of the study is to understand how implementation research has informed the development and implementation of COVID-19 public awareness raising interventions.

Methods

The study team utilized a qualitative cross-sectional study design through in-depth interviews (IDI) with key informants involved with COVID-19 public awareness raising activities. Through this methodology, the team gained a deeper understanding of the different factors influencing integration of implementation research in the development and implementation of COVID-19 public awareness raising activities.

The study was conducted in the capital city of Yerevan and included key informants working at the Ministry of Health and NCDC involved in COVID-19 public awareness raising activities.

The research team identified suitable informants from the above mentioned institutions through

the utilization of professional contacts as well as with the assistance from the Ministry of Health. Four interviews were conducted.

The research team conducted the IDIs taking into consideration the time and place most convenient for the participants. After getting permission from the study participants, interviews were audio-recorded. The interview guide included questions about use of studies conducted locally, internationally, and at the participant's institution, examples of collaborations with other units or institutions, as well as participant's institution's capacity for conducting research to inform the development and implementation of the awareness-raising activities. Data collection continued until interviews were conducted with all essential key informants who have the expertise and experience in COVID-19 awareness-raising activities and could provide valuable insights.

Collected data was coded by words, meaningful sentences, which later on were grouped under several themes. The codes, categories and themes were not predetermined to improve the credibility of the study findings.

Findings

Overall, four in-depth interviews were conducted with the representatives of the Ministry of Health (MoH) and the National Center for Disease Control (NCDC). All of the participants were female, the mean age was about 43 years old, ranging between 28-63. All of the participants had a graduate-level education. Their work experience in their current position ranged between 2-17 years.

Description of main themes

The findings of the study are presented below, grouped according to the main themes based on the data collection tool: awareness-raising activities before and after the COVID-19 pandemic (1), main gaps in awareness-raising activities during the pandemic (2), utilizing research for program implementation (3), role of research in program implementation (4), institution's research capacity for guiding awareness-raising activity development and implementation (5), suggestions/recommendations to boost implementation research (6). The first theme describes the involvement of the key informants in various awareness-raising activities before the start of the pandemic, including the intensity and scale of those activities. The second theme dives deep

into the gaps of the awareness raising activities during the pandemic, including monitoring and evaluation, coordination, and integration with the efforts of other stakeholders. The third theme explores specific examples and cases when implementation research was practiced by the informants locally, internationally and at the organization level. The fourth theme presents the role that research plays in carrying out program implementation. The fifth theme explores the capacity of the institution to conduct research to inform the development and implementation of the awareness-raising activities. Finally, the sixth theme focuses on the suggestions and recommendations to boost implementation research in awareness-raising activities.

1) Awareness-raising activities before and after the COVID-19 pandemic

- **Main collaborators and partners**

The majority of the respondents highlighted that even before COVID-19, they were conducting awareness-raising activities in different areas such as healthy lifestyle, smoking, infection prevention, and others; however, all of the respondents unitedly agreed that the intensiveness of the awareness-raising activities had certainly risen after the COVID-19 pandemic. Participants mentioned different platforms for the awareness-raising activities, including SMS text messages, social media, video shootings, etc.

“Raising awareness is a very important component in the immunology/disease prevention field, especially [when working] with the healthcare workers and the healthcare workers [work] with the general public. It was widely used even before the start of the COVID-19 pandemic. But during COVID-19, of course, it got more intensive.” (Participant 2)

“They [awareness raising activities] were done before as well, starting with leaflets, posters, short educational videos, or SMS communications, all that was used. This time [referring to COVID-19 pandemic] their intensity was higher in my opinion ..., and everyone was talking about it.” (Participant 2)

Among all four respondents, only one of them shared a varying opinion regarding the “before-pandemic” awareness raising activities. She explained that although she was not well aware of the intensity of awareness raising activities before she joined the organization, according to the challenges and difficulties they faced during these activities, she assumed that it must have been a new or less active component at the organization.

“I won't be able to talk much about it, since I started working in the organization starting from 2020....., but from what I understood it [awareness raising] was quite a new thing it wasn't there before and they [people working at the organization] were not entirely familiar with the concept.” (Participant 1)

During the interviews, participants mentioned some of the main domestic and international collaborators and partners, including the International Republican Institute (IRI), American University of Armenia (AUA), UNICEF, International Organization for Migration (IOM), WHO, CDC, diaspora Armenian partners, and inter-governmental cooperation between ministries.

“Of course, the World Health Organization provided both technical and resource support, and we received support from the US Center for Disease Control and Prevention (CDC).” (Participant 2)

“Well, we collaborated with the Ministry of Education, we announced about tik-tok prizes, we also involved the schoolchildren and shot educational short videos. We also worked with different communities, as well as the Yerevan and regional municipalities. We also cooperated with local NGOs, not to mention the tremendous material, financial and methodical support which we received from WHO, UNICEF, and other donor organizations.” (Participant 3)

“The International Organization for Migration (IOM) also contributed to the preparation of specific targeted messages related to migrants.” (Participant 1)

2) Main gaps in awareness-raising activities during the pandemic

When the interviewer asked the participants to share the challenges and gaps they faced regarding the awareness-raising activities during the pandemic, various gaps were mentioned and discussed. One of the participants brought up the issues related to the lack of proper monitoring and evaluation at the organizational level.

“We did not have proper monitoring and evaluation. It was one of the biggest problems, I think if we go back in time and talk about the things that we can improve in case of future pandemics or emergencies, this issue would definitely be one of them. We

didn't have metrics according to which we could say, well, we conducted this research, and based on it we tried to do the risk communication implementation.” (Participant 1)

Another challenge identified during the data collections was related to teamwork and task follow-up process due to the existing disorganization.

“Another problem that I can mention is team organization and follow-up. It was very difficult to convince people to enter their work on a single Google spreadsheet so that everyone understood what was happening and prevented double work. It was very complicated.” (Participant 1)

Another major gap mentioned by one of the participants was related to the existing bureaucracy within the organization. She explained that due to this problem, even small tasks and projects, for example, reviewing and approving a simple flyer or poster design, were very time-consuming. This is to say that approvals and/or consents were needed to be obtained every step of the way, and because of this issue, sometimes, by the time something was ready to be implemented/published, the content was not relevant anymore.

“Bureaucracy is a very big problem, meaning the process regarding what is allowed and what is not allowed or the approvals over very simple things..... oftentimes one simple task was taking a month, for example, a simple poster. Because of that, many things were no longer relevant. Things were not moving fast enough, and I think that was a big problem.” (Participant 1)

Lastly, the participant reported about lack of involvement and cooperation with other ministries regarding the COVID-19 projects as well as a lack of open communication channels both between the government staff and the public.

“Another big gap was that there was no work done in other ministries related to COVID-19. I mean, it was very limited. I would prefer that every ministry that was connected to us had its own member in our group. There were a few people from the Prime Minister's office who were quite involved, but I think that the Ministry of Education should have also participated so that everything would have been more consistent.” (Participant 1)

“When we were reviewing our successful and unsuccessful experiences, I always mentioned about one holistic government approach. I mean, starting from the prime minister until the general public, everyone should know what is happening, and I can say that it was one of the big gaps that generally during an emergency situation, everyone should have an open communication channel with each other.” (Participant 1)

One of the respondents highlighted the issue of conspiracies and misinformation among healthcare workers and the general public regarding COVID-19, which in some cases, according to the participants, was due to certain politics.

“Regardless of how hard we tried to bring logical explanations but those conspiracy theories...., that was the most terrible and unpleasant thing. A more terrible and painful challenge was that some medical workers were following these conspiracy theories, and they were actively campaigning about it. That was the most painful thing and the main challenge.” (Participant 3)

Another respondent shared that since COVID-19 was a new virus at the time there was insufficient knowledge in this regard. The awareness-raising process, as well as risk communication with the population, was more challenging and uncertain. She also added that not having certain communication plans was another challenge they faced during the COVID-19 pandemic.

“See, the situation was completely different in the case of COVID. During the initial stage of COVID, we didn't know what to expect or how the disease would manifest, and in this regard, we were constrained, as a speaker, thinking what should we say, whether it will benefit us or not if we speak about it, won't that information change tomorrow. It was constantly changing, and it somewhat constrained us to address our correct messages.” (Participant 4)

“After the vaccinations started on April 2021, we visited different organizations and marzes... we didn't know what messages we should convey, how should we communicate? We went to the marzes and had meetings with different communities but did not have a clear communication plan.” (Participant 4)

3) Utilizing research for program implementation locally, internationally and at the organization

When the participants were asked if they would remember some specific examples regarding any research conducted by their own organization or the international or local partners during the awareness-raising activities, unfortunately, the majority of participants could not recall specific examples. However, they highlighted that they reviewed studies conducted by IRI, AUA, WHO and they also examined the experiences of other countries.

“There was nothing conducted directly by the MoH. NCDC is responsible for immunization; therefore, they were in charge of more or less any kind of data collection, understanding of the problems and what we can do better related to COVID.” (Participant 1)

“In general, it was not done by the MoH. IRI and AUA conducted research; the research done by IRI was quite interesting...there was one conducted regarding COVID-19 and other two surveys were related to vaccination.” (Participant 1)

“It was not conducted by our institution. In this case, we were mainly guided by international experience and information materials offered by international health organizations.” (Participant 2)

One of the respondents mentioned about the importance of one of AUA's studies, reporting that according to the majority of the population, health care workers were the most trusted people and they also served as the main channel of communication with the public. She also added that they used the result of this study and started to involve the primary healthcare physicians (PHC) and other health workers in different projects.

“The study that you [the AUA] conducted regarding the healthcare workers, that one was clearly used. According to the results, many people identified [healthcare workers] as trustworthy professionals and the main messenger to the general public. We tried to involve them in everything. We used that one precisely.” (Participant 1)

Another respondent stated that their organization had a vast experience in regard to conducting research in the immunization field and also cooperating with other partners including WHO, CDC, and AUA, however during the COVID-19 pandemic, did not conduct formal research. The

respondent mentioned that they mostly used their hotline (call center) service to record the most frequently asked questions and other information from the public and analyzed them to get the full picture about the public's main concerns, needs, and their knowledge gaps.

"..... We used our center's hotline (call center) service during that period, and we identified and recorded the frequently asked questions. According to the recorded frequently asked questions, we were able to get an overall idea about people's concerns and their knowledge gaps. There was no formal research conducted." (Participant 4)

4) Role of research in program implementation

Although all the participants have emphasized the importance of research in the decision-making processes of the awareness-raising activities, some of them shared some existing institutional gaps and challenges which did not allow them to conduct large-scale studies.

"Research is 100% essential. Whenever there is research, the organization should use the results or at least be aware of the results." (Participant 1)

When asked about the role of implementation research, one of the participants emphasized that conducting large-scale studies holds greater value during stable circumstances, as they may not be as applicable in rapidly changing situations like the COVID-19 pandemic.

"In my opinion, large-scale research itself is needed for more relatively stable situations. We had a rapidly changing situation, the virus was constantly mutating, its form of manifestation was constantly changing... we had a lot of large-scale research, they were not working, it was an unnecessary waste of funds and resources, to be honest." (Participant 2)

The same participant also highlighted that in order for research to be meaningful, it must possess a clear objective aimed at developing an actionable and timely plan to effectively reach the target population. She underscored that research shouldn't be conducted for the sake of research only, but rather result in relevant consequent action based on the findings.

"As soon as the research is done, it should be given legal force in the form of an order, an action or a communication plan." (Participant 2)

One of the participants mentioned about the importance of implementation research in terms of addressing current gaps and developing evidence based interventions. She also found research important in terms of gathering pre-post implementation data.

“When you do research, you understand your real gaps and realize which are those tools, mechanisms that you have to apply specifically in your country... In order to choose and develop any strategy, you must first have information, and in general, the strategy should be evidence based.” (Participant 4)

“Research is very important to gather pre-implementation data because you might say certain number have risen but unless you have initial data there is nothing you can compare it to.” (Participant 4)

5) Institution’s research capacity for guiding awareness-raising activity development and implementation

The research participants were asked about their institution’s research capacity in awareness-raising activity development and implementation. Two of the respondents, working in the same institution, reported some main challenges regarding their capacity to carry out research in their workplace, including a lack of corresponding human resources and issues with budgeting and allocation of time. The respondents explained that not having an appropriate body/department which can conduct, interpret and analyze research was a serious challenge. Additionally, not having a specific and sufficient budget to allocate for research and, finally, the busy schedule of some of the staff were among the existing issues in their institution.

“Financial resources, as well as the corresponding human resources. As you know, there are some required skills that are needed to conduct research. Although we have young staff who have some research skills, this is formally out of their scope of responsibilities, and they do not have the opportunity to do research.... Financial, human resources and time [are the main challenges].” (Participant 3)

“Lack of resources, lack of staff, and human knowledge. [Another issue is] people [not] having the appropriate positions in the organization...” (Participant 1)

Another respondent, however, stated that their institution has all the means, both human and financial, to conduct full-scale research.

“Our organization has sufficient resources, equipment, and professional personnel for conducting research. There are also certain departments for data management, and we have corresponding professionals who are in charge of public awareness-raising activities. Through this cooperation, I think we are able to conduct research.”

(Participant 2)

6) Suggestions/recommendations to boost implementation research

At the end of each interview, the participants were asked to share their suggestions or recommendations regarding how to boost implementation research in their organizations. Some participants emphasized the importance of having competent personnel with the necessary expertise to effectively carry out research and apply its findings in practical settings, thereby promoting a more dynamic implementation of research outcomes. Furthermore, it is essential to allocate sufficient financial resources and provide adequate funding to facilitate extensive research activities and utilize the outcomes effectively.

“First of all, I think it is very important for the organization to have, as I said ten times, the resources. I mean to have a person who can understand the research, a person who can summarize and present it in a very concise and clear way, is very important.”

(Participant 1)

“To be honest, our main weakness is the lack of financial resources.” (Participant 4)

Another participant noted that having an example of a successful experience related to the practical implementation of research results can serve as a motivating factor. She then mentioned that having an example of a research result that has been practically used during a decision-making process and resulted in developing an effective and beneficial policy would boost the motivation to conduct and use research findings in their practice. Moreover, she highlighted that it is crucial to demonstrate that research goes beyond mere documentation and actively contributes to advancements and addressing the relevant issues.

“I think in order to encourage, we should have a so-called successful experience and show the effectiveness of a decision/ policy that was made based on that successful experience. We can take it as an example to encourage the implementation of research regarding other issues and problems as well. I mean to have an example of a successful

experience showing that research results went beyond mere documentation and they also had practical value that somehow contributed to raising the population's awareness regarding a particular issue.” (Participant 2)

One of the participants declared that, in her opinion boosting research activities would be possible through collaboration with other partners or donor organizations. This is to say that although the participants mentioned that they sometimes conduct some type of research themselves, they might not be able to organize full large-scale studies on their own and will need support from their partners and donor organizations.

“In my opinion, it is only possible through the support of donor organizations and our partners. It will not be realistic for a governmental organization to do all that [research] alone. I mean not that we don't do it at all, we also sometimes conduct research or run surveys, but we are not able to conduct full-large scale research with all the needed requirements. Because of that, we mostly rely on our partners and colleagues.” (Participant 3)

Concluding remarks

- The majority of respondents acknowledged that they were already conducting awareness-raising activities before the pandemic, but the intensity of these activities significantly increased after COVID-19. Various platforms such as SMS text messages, social media, and video shootings were used for these awareness campaigns.
- Participants mentioned several challenges and gaps in awareness raising activities during COVID-19, including the lack of proper monitoring and evaluation, disorganization in teamwork and task follow-up, bureaucratic hurdles, lack of involvement and cooperation with other ministries, and insufficient communication channels with the public.
- Participants emphasized the value of research in guiding awareness-raising activities. They highlighted the need for clear objectives and evidence-based interventions to address current gaps and gather pre-post implementation data.
- Respondents faced challenges related to conducting research in their institutions, including a lack of corresponding human resources, issues with budgeting and time allocation, and the absence of a dedicated research department.
- Participants suggested several ways to enhance implementation research, including the need for competent personnel with expertise, sufficient financial resources, examples of successful research utilization, and collaboration with partner organizations or donors to support large-scale studies. Demonstrating the practical impact of research in policymaking was also emphasized as a motivating factor.

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