Lessons learned conducting abortion research in fragile contexts:Reflections from a mixed methods study in Africa (the AMoCo study)

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Abstract

Background

Conducting abortion research in fragile settings presents challenges, many of which are present in other low-resourced settings to various degrees but when appearing all together, collectively served to create a set of barriers to collecting data that required creative adaptations to address and even then, we could not overcome all of them.

Results

Challenges that we experienced in the course of this mixed methods research project included limited access to the study sites by research team members, research being delayed to prioritize life-saving priorities which must take precedence when resource constraints mean that both cannot be carried out, a population skeptical of participating in research due to having negative experiences with the state/other actors as well as due to being research-naïve, geographic and language constraints impacting participant recruitment because of the fact that people are coming from various displaced locations to a particular health facility, a low literacy population meant that they could not read the consent form and due to the stigmatized subject matter we did not want a family member consenting them, and respondents' challenges participating around the time of discharge because respondents needed to travel home with family members.

Conclusions

These strategies are relevant not only to abortion research but also other research in resource-constrained/fragile and conflict-affected contexts. Improving the health of the most vulnerable can only be done through understanding barriers to care in insecure and challenging environments. Recommendations include to plan for offsite and long-distance training, supervision, and quality assurance; attempt to negotiate flexible timelines with donors; hire field staff whose only responsibility is data collection; where possible, find a way to include the most vulnerable members of the study population; adapt informed consent processes for low literacy populations; and consider including travel support for respondents. Iterating improvements in data collection innovations in these contexts will advance the field by spurring more research upon which to base policy and practices.

Background

We conducted a mixed methods study to describe abortion-related near-miss complications among women seeking treatment in Emergency Obstetric Care (EmOC) facilities supported by *Médecins Sans Frontières (MSF)* in resource-constrained/fragile contexts in a specific geographic area in three sub-Saharan African countries. The study included four components: a knowledge, attitude, practice and

behavior survey of providers; a prospective medical record review of women with any kind of abortion complication; a survey with a sub-sample of women who were hospitalized for an abortion complication; and a qualitative in-depth interview with women who had experienced a near-miss or potentially life-threatening complication. Between October 2019-July 2021, we were able to implement the four planned research components in two EmOC facilities, one located in Bangui (Central African Republic) and one Jigawa State (Nigeria). While there were several sampling, implementation, and ethical challenges in those two sites for which we had to devise strategies to overcome, the third site, North Kivu (Democratic Republic of Congo) presented us with challenges that were unsurmountable. Increasing natural disasters and conflict events in North Kivu meant that the study design was eventually reduced from four components to one, the medical record review, the data for which were captured retrospectively. While some of the challenges experienced are present in non-resource-constrained/fragile contexts, the frequency with which they arose and the intensity with which they impacted our study underscores the difficulty of conducting research on abortion in these contexts. We present challenges to our study and the adaptations; in doing so, we hope it will facilitate future abortion research in resource-constrained/fragile contexts.

Results: Key Challenges To Conducting Abortion Research In Fragile And Conflict-affected Contexts

Limited access to the study sites by research team members impacted training and monitoring

The data collection sites were subject to threats including kidnapping and armed attacks. While there was a risk to the fieldworkers and data collectors to be physically present in all three sites, the risk was deemed moderate in Bangui and Jigawa State. In North Kivu, the risk was too high to put fieldworkers in place.

Security measures limited the number of non-healthcare workers on-site in Bangui and Jigawa State. Therefore, to accommodate the safety protocols of the health facilities and reduce the amount of time the field team spent in physically dangerous locations, training the fieldworkers and the subsequent monitoring of the data collection activities was chiefly done off-site. While it required more travel for the fieldworkers, and additional costs incurred housing the full project team in another location, holding fieldworker trainings offsite allowed more trainers to engage with the field staff. This was especially valuable given the multi-institutional management of the project which is a reflection of the overlapping areas of expertise of the co-investigators. In addition, the co-investigators held some trainings virtually. Limited data monitoring occurred in-person, the rest was done via WhatsApp, video meetings, reviewing scanned copies of anonymized data collection forms off-site.

In North Kivu, we were unable to hire on-site data collectors or send a research team to the field site because of an increased number of armed attacks in the area, coupled with a concomitant Ebola

outbreak and a volcanic eruption during our intended data collection period. Consequently, it was only possible to conduct the medical record review component, and even that component had to be modified to review retrospective data rather than prospectively capture qualifying cases. This had unavoidable implications on data quality. To implement this strategy, two on-site nursing assistants were seconded to the study to identify and scan relevant de-identified medical records and save them in a secure shared folder online. Study clinicians based in Kinshasa were able to review the medical records long distance. Even though the data collected retrospectively were not comparable to the data collected prospectively in CAR and Nigeria, the results still provide useful insights into the severity of abortion complications in that location.

Life-saving priorities take precedence over research, delaying research activities sometimes indefinitely with concomitant staffing and budget implications

During the course of this study's data collection, the study hospitals faced the intensification of violence resulting in an increased number of wounded from armed conflict and/or disease outbreaks (Lassa Fever, Ebola, and Covid-19). These events created demands that took more time of the medical staff and space at the facility. In all study sites, we delayed our research activities each time the changing healthcare landscape required it, in some cases incurring a multi-year delay. In one study site, the study team was relocated during the course of data collection to smaller, noisier space within the hospital to create a Covid-19 ward in the previous study office. This caused disruption to the field team and resulted in them having to work in a more challenging environment in which they had to conduct the interviews.

Resource-constrained/fragile settings often face health staff shortages, meaning that available staff are overwhelmed with demands on their time. The implication of this is that it is not ethical to expect that health staff facilitate the data collection process. Therefore, for all subcomponents of the data collection process, separate staff were hired to carry out the necessary activities (i.e. conduct patient sensitization, recruitment and complete the data collection tools).

Infectious disease outbreaks also impacted the study's ability to collect data safely. The study was in the midst of fieldwork in one site during the onset of the Covid-19 pandemic. As no one knew how severe the Covid pandemic would get, it was prudent to halt non-essential activities. Therefore, we suspended our data collection efforts for four months to make sure we were protecting both the participants and research staff from possible infection and to have the time to design a safety protocol and secure adequate Personal Protective Equipment for staff.

A population reticent to participate in research made recruitment more challenging

Research teams were met with apprehension when trying to recruit eligible respondents. Living in resource-constrained/fragile and conflict-affected contexts may have made residents in these areas more suspicious of anyone asking for personal information out of concern that it might make them vulnerable to persecution and/or exploitation. In addition, there was a lack of awareness of research in general among the populations we were attempting to interview such that being asked to participate in a research

project was an unfamiliar experience. As a consequence, there were misperceptions regarding the field team's intended purpose for interacting with potential respondents. This sometimes resulted in the need to sensitize not only respondents but also family members at the health facility who had accompanied the woman who sometimes objected to the potential respondents participating in the study. Furthermore, as we were attempting to recruit women who may have just had an induced abortion, potential respondents' reticence to participate in a study asking questions about what led to her health complications and suspicion among family members who were perhaps concerned for her and their own legal vulnerability should questions implicate them in an illegal activity were perhaps magnified. The fact that the woman had just been through a traumatic near-death experience may have led to further feelings of vulnerability as well as emotional and physical exhaustion such that a request to do anything extra was unwelcome.

To address the proportion of respondents reluctant to participate, we allocated someone who had been trained as an interviewer to spend the majority of her time on sensitizing potential respondents as well as their family members. By sensitizing we mean explaining that a research study was happening, describing its purpose, what would happen if an individual was willing to participate, and providing an opportunity for all obstetrics and gynecology patients and their family members to ask questions. These strategies increased respondents' willingness to participate but didn't ameliorate all respondents' or family members' concerns.

Insecurity restricted where data could be collected, preventing the team's ability to collect data that could be generalized

In fragile settings, insecurity can prevent quantitative data collectors from being able to randomly sample health facilities or a population at the household level. To conduct this study, we had to limit facility selection to one functioning hospital in each country where the infrastructure and security meant that data collection could happen safely. It meant that our study missed women who went to other referral health facilities in the area from which we could not collect data due to security concerns, the poorest women and the women who live in the most insecure locations who are unable to travel to seek medical care from the hospital in which we were recruiting, and we also missed the ability to include any woman who died as a result of abortion-related deaths. This selection bias prevents the generalization of the quantitative results to the population of the target area.

Language barriers showed up in two ways—in the way we redesigned the consent form and as a barrier to recruitment of some eligible respondents

Resource-constrained/fragile settings often have high poverty rates, low access to education, and low literacy, especially when the fragility or conflict is chronic.[1] The Council for International Organizations of Medical Sciences (CIOMS)[2] recommends illiterate people should choose a neutral literate third party to participate in the informed consent process to ensure that the information provided verbally is correct and well understood by the participant. Yet we found illiterate respondents did not want to involve a third

party, perhaps because of the sensitive subject of the research. In response, we created an alternative consent process by providing them the option of listening to an audio-recording of the consent form in a local language (Sango in CAR, Hausa in Nigeria) which had been pre-validated by an independent third-party from the community. In addition, the information notices and posters hung in the hospitals wards to inform women about the study included pictograms to help women with low literacy understand the information provided (see Fig. 1).

In facilities that serve displaced populations, it is common that a variety of languages are spoken among the patients, making research (and caregiving) challenging. We prioritized hiring fieldworkers who spoke the dominant language of the study areas, but who could also communicate with the international study team (French/Sango in CAR, English/Hausa in Nigeria, French/Lingala in the DRC). This meant that we excluded from the survey and the in-depth interviews respondents who did not speak those languages.

Some respondents were not fluent in either language interviewers spoke, but had some capacity in one of those languages, and we included them (Fulani in Jigawa State). As these women can be considered even more financially marginalized due to their linguistic isolation, it felt important to capture their experiences, even if we weren't able to capture them as fully as more respondents who were fluent in the language of the interviewers. The language barrier impeded communication between the respondents and interviewers because respondents didn't understand some questions; additionally, respondents may have been less willing to disclose information because of the social and communication barrier present.

The need to travel together, due to safety and cost, made it difficult for respondents to stay after discharge to participate in the study

Women who had been hospitalized with a severe abortion complication were invited to participate in a qualitative in-depth interview. Security concerns detailed above meant that the interview had to take place before the woman left the hospital because the field team was not able to conduct the interviews off-site. Potential respondents were recruited to participate when they were assessed as medically stable (physically and psychologically) to ensure they were fully capable of providing consent, which often corresponded with when they were discharged. Some eligible respondents would have preferred to participate in the interview later but that wasn't an option we could offer.

At the time of discharge, many participants were eager to leave because their family members were waiting for them to travel back to their village since in these settings women rarely, if ever, travel without a family member as an escort. Others were still tired from the health ordeal they had just experienced. This meant that some eligible respondents left before being interviewed, some cut individual answers short although they stayed through the end of the interview, while others left partway through the interview.

Discussion: Recommendations To Mitigate Challenges Conducting Research In Resource-constrained/fragile Contexts

Conducting rigorous research on abortion complications and their impact on women's health and well-being in resource-constrained/fragile and conflict-affected contexts requires being responsive to the ever-changing context and adapting one's methods accordingly. Future research on sensitive subjects such as abortion in such contexts could benefit from the following recommendations:

1. *Plan for offsite and long-distance training, supervision, quality assurance and even data collection in the event that it is not possible to have study staff go to the site.*
2. *Attempt to negotiate flexible timelines with donors to account for delays in fieldwork due to security risks and environmental challenges that require pausing fieldwork*
3. *Hire field staff whose only responsibility is data collection so as not to impinge on clinicians' time; anticipate that study sensitization will also be a need.*
4. *Where possible, find a way to include the most vulnerable members of the study population in the study, and/or try to identify secondary data sources to compare the study population with what is known about the population of the area.*
5. *Adapt informed consent processes for low literacy populations through innovative methods (e.g. pictograms, pre-validated audio/video-recorded information) so that there is no need for a third-party to be present during the consent process; this is especially important when studying stigmatized health issues.*
6. *When interviews cannot be done after discharge from the hospital for security reasons, consider providing support for travel if women are inconveniencing others due to their participation (e.g. paying the transport or arranging a car and possibly accompaniment if safety protocols allow) as a way to increase participation, psychological comfort and the respondent's ability to focus on the interview.*

These strategies are relevant not only to abortion research but also other research in resource-constrained/fragile and conflict-affected contexts. Iterating improvements in data collection innovations in these contexts will advance the field by spurring more research upon which to base policy and practices. It is our obligation to improve the health of the most vulnerable; this can only be done through understanding barriers to care in these insecure and challenging environments. Therefore, in spite of the difficulties working in resource-constrained/fragile and conflict-affected environments, we must continue to do so and hopefully get better at it by sharing adaptations that facilitate continued innovation to improve patient protection and data quality.

Declarations

Ethics approval and consent to participate: *This research adhered to the principles of the Declaration of Helsinki. Independent ethical approvals were obtained from MSF (ID 18110), the Guttmacher Institute (DHHS identifier IRB00002197), and both Central African Republic (N°18/UB/FACSS/CSCVPER/19) and Jigawa State ethical review boards (MOH/SEC.3/S/548/I). In accordance with the Council for International Organizations of Medical Sciences guidelines (2), all ethical committees provided a waiver of written informed consent for the extraction of routine clinical data with no identifying information and*

approved the application of an informed consent opt-out procedure instead. Posters and information notices about the study were available in areas visible to the women presenting for post-abortion care. Health educators provided information about the study in waiting areas and gynecology-obstetric wards. Clinicians in charge of PAC were trained about the study, informed consent opt-out process, and confidentiality principles to verbally inform women about the study and the opt-out option during the clinical visit. If the woman wanted to opt-out, the clinician completed an opt-out form that was inserted in the medical record. A medical record with an opt-out form was excluded from the study. The informed consent opt-out process for women who died was done with the women's family.

Consent for publication

Not applicable

Availability of data and materials

The dataset collected during the study, including deidentified participant data, data dictionary and additional related documents such as study protocol, data collection tools, procedures and statistical analysis plan, are available from the corresponding author on reasonable request, following MSF's data sharing policy which ensures that data will be available upon request to interested researchers while addressing all security, legal, and ethical concerns, especially for sensitive subjects like abortion in vulnerable populations (https://www.msf.org/sites/msf.org/files/msf_data_sharing_policycontact_infoannexes_final.pdf).

Competing interests

The authors declare that they have no competing interests.

***Author contributions**: AMM participated in managing fieldwork challenges of the qualitative component, drafted the text and managed revisions based on co-author input. EP contributed significantly to multiple drafts and collaboratively made decisions with TW to trouble-shoot challenges during fieldwork. TW oversaw the implementation of fieldwork in one study site, making decisions on how to adapt the study implementation based on arising challenges. TF and OO contributed to decision-making during fieldwork and provided input on multiple drafts. CF and DL participated in site management of one site and liaising with the hospital and overall project. BP, MCAG, NNM, LNM, RN, DL, CSH and EB contributed to problem-solving during fieldwork, and provided input on earlier drafts. HC oversaw the implementation of fieldwork in two study sites, participated in fieldwork supervision and troubleshooting in all sites.*

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References

1. *National Population Commission - NPC, ICF. Nigeria Demographic and Health Survey 2018 - Final Report [Internet]. Abuja, Nigeria: NPC and ICF. ; 2019. Available from: http://dhsprogram.com/pubs/pdf/FR359/FR359.pdf*
2. *Council for International Organizations of Medical Sciences (CIOMS). International Ethical Guidelines for Biomedical Research Involving Human Subjects, Fourth Edition [Internet]. Geneva [Switzerland]; 2016 [cited 2022 Mar 21]. Available from: https://cioms.ch/publications/product/international-ethical-guidelines-for-biomedical-research-involving-human-subjects-2/*

Figures

Figure 1

Opt-Out Signage for a Low Literacy Population (English and Hausa)