

ORIGINAL RESEARCH ARTICLE

Identifying gaps and strengthening capacities for abortion research in Ethiopia: Assessment of abortion-research related experiences, skills, and interests

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Abstract

Collecting accurate and reliable data on abortion is public health imperative, but it is a challenging task that requires specific methods and carefully implemented study designs. This study aimed to assess the institution and individual-level capacity for conducting abortion-related research and identify effective ways to strengthen the capacities of abortion-researchers by filling critical skills and resource gaps. Employing a cross-sectional quantitative and descriptive qualitative research approach, we found that the implementation environment posed challenges, including resistance from religious groups, and individual skill gaps in analyzing abortion data, communication, policy brief preparation, and networking skills. Therefore, investing in building the skills and confidence of researchers to conduct robust research through tailor-made training and reactivating existing partnership fora to facilitate regular interaction between the research community and policy makers is crucial. Jointly seeking funding to support locally relevant research activities is also recommended. (*Afr J Reprod Health* 2023; 27 [8]: 19-27).

Keywords: Abortion-research, capacity building, Ethiopia

Résumé

La collecte de données précises et fiables sur l'avortement est un impératif de santé publique, mais c'est une tâche difficile qui nécessite des méthodes spécifiques et des plans d'étude soigneusement mis en œuvre. Cette étude visait à évaluer la capacité des institutions et des individus à mener des recherches sur l'avortement et à identifier des moyens efficaces de renforcer les capacités des chercheurs sur l'avortement en comblant les lacunes critiques en matière de compétences et de ressources. En utilisant une approche de recherche qualitative quantitative et descriptive transversale, nous avons constaté que l'environnement de mise en œuvre posait des défis, notamment la résistance des groupes religieux et les lacunes des compétences individuelles dans l'analyse des données sur l'avortement, la communication, la préparation des notes d'orientation et les compétences en réseau. Par conséquent, investir dans le renforcement des compétences et de la confiance des chercheurs pour mener des recherches solides grâce à une formation sur mesure et réactiver les forums de partenariat existants pour faciliter une interaction régulière entre la communauté de la recherche et les décideurs politiques est crucial. Il est également recommandé de rechercher conjointement des financements pour soutenir des activités de recherche pertinentes au niveau local. (*Afr J Reprod Health* 2023; 27 [8]: 19-27).

Mots-clés: Recherche sur l'avortement, renforcement des capacités, Éthiopie

Introduction

Strengthening local capacity for research is crucial in generating locally relevant evidence to inform policy and programmatic action and enhance sexual and reproductive health outcomes. Unfortunately, many African countries lack strong local research capacity¹. Ethiopia is no exception, with underdeveloped research infrastructure, including

both physical and digital resources², low research production rate where Ethiopia contributed only 0.18% of the world's research output and 5% of publications from Africa in 2020³ which limits the ability to generate evidence to inform policy and programmatic action. The number of researchers per million inhabitants is also low, with only 145.3 in 2017³ and, with only 33 papers per million people, less than half of the African average and

most other low-income countries⁴. Gross expenditure on research and development (GERD) was less than 1% of Gross Domestic Product in 2017⁴.

Various initiatives have been launched to build local research capacity in Africa, with the aim of understanding the determinants of health and effectively intervening to improve health outcomes and health systems. One such initiative is the Consortium for Advanced Research Training in Africa (CARTA), which aims to build local research capacity⁵. The Strengthening Abortion Research Capacity in sub-Saharan Africa (STARS) program is another initiative that has demonstrated the importance of building local capacity for abortion research in African countries. The program has achieved significant milestones in Mali by initiating key studies on abortion, creating a platform for nurturing the country's next generation of abortion researchers, enhancing institution-based abortion and sexual and reproductive health and rights research expertise, and institutionalizing abortion research. The program's efforts have led to an increase in the quantity and quality of locally generated evidence on abortion, which has contributed to evidence-informed abortion policy and programmatic action¹. Overall, these initiatives demonstrate the importance of building local research capacity in Africa to understand the determinants of population health and effectively intervene to improve health outcomes and health systems.

In Ethiopia, the share of unintended pregnancies ending in abortion has increased from 19% in the period between 1990–1994 to 31% in the period between 2015–2019, resulting in an annual abortion rate of 24 per 1000 women aged 15–49⁶. Unsafe abortion accounts for an estimated 8.6% of maternal deaths in Ethiopia⁷. Despite the presence of well-trained researchers with strong capacity to do research on different issues, including abortion and the liberalization of the abortion law in 2005⁸, research on abortion practices has been sparse due to several challenges including stigma and legal restrictions⁹.

Abortion is distinct from other health-related research since legality and understanding of legal rights overlay an individual's pathway to care⁹. This can make it difficult to recruit study participants, gather accurate information, and limit the availability of data. Furthermore, since abortion

is episodic and stigmatized, collecting accurate and reliable data on abortion in either community-based or facility settings is difficult and requires the use of specific methods developed to improve the measurement of abortion.

Given the complexity of the landscape of abortion, comprehensive approach is needed to strengthen abortion research capacity in Ethiopia. For this effect, a consortium comprising experts from Guttmacher Institute, Addis Ababa University (AAU) and St. Paul Institute for Reproductive Health and Rights (SPIRHR) was established to strengthen the capacity of Ethiopian researchers to conduct abortion-related research. Assessing abortion-research related experiences, skills, and interests of researchers and identifying the gaps is an important first step to provide more clarity on how capacity strengthening programs can effectively be implemented. This paper reports the outcome of a needs assessment undertaken to identify the institution- and individual-level capacity for conducting abortion-related research highlighting the current state of abortion research capacity in African countries and the gaps and challenges in building research capacity.

Methods

Study design and aim

This study employed a cross sectional quantitative and descriptive qualitative survey approach to assess gaps in abortion-research related experiences, skills, and interests.

Study participant recruitment process

Eligible respondents were professional individuals from Ethiopian-based institutions involved in abortion-related work identified through several means. Firstly, we conducted a systematic review of abortion-related research outputs in Ethiopia between 1 January 2005, (i.e since the liberalization of the abortion law⁸) and 31 December 2021. Research4Life¹⁰ database, Google Scholar, websites of different institutions and institutional research repository of Addis Ababa University¹¹ were searched in January 2022.

The search strategy comprised two types of search terms – geographic descriptor (i.e. Ethiopia) and subject descriptor (i.e. abortion) and the

following inclusion criteria were applied: scope – titles or abstracts that explicitly lists any abortion-related term, including but not limited to post abortion care and unintended pregnancy; geography (Ethiopia); language (English); publication date (published between 1 January 2005 and 31 December 2021); publication type (journal articles, book chapters, conference proceedings and theses). Search results were downloaded in Endnote, duplicates removed and exported to excel. The title, abstracts, authors, authors' contact, publication year and source were retained for each record. We used this corresponding author contact information to form our list of researchers to contact.

Secondly, Consortium of Comprehensive Abortion Care (COCAC), Consortium of Reproductive Health Associations (CORHA) and professional associations including Ethiopian Society of Obstetricians and Gynecologists (ESOG), Ethiopian Midwives Association (EmWA), Ethiopian Public Health Association (EPHA) and Ethiopian Nurses Association (ENA) were consulted on the relevant individuals working on abortion to approach for additional relevant professionals. A consolidated list of potential respondents was created by combining these sources.

Sample size determination

A purposive sampling was used to determine the study participants based on the nature of work/assignment and experiences in abortion-related research and developed two lists of respondents (researchers and stakeholders) for online survey and focus group discussion. In the recruitment process, we identified 12 institutions and 132 authors who had publications on abortion-related topics since 2005. However, the consortium decided to retain only email addresses of 29 stakeholders and 63 authors who had research on abortion in the past 5 years (since 2017) considering the budget and time constraints.

Survey instrument

The survey instruments included two separate online questionnaires (distinguished between researchers and abortion stakeholders) and a discussion guide for the focus group discussion. Survey instruments were piloted with five

researchers who had experience in leading abortion-related research and with sufficient knowledge of the organizational needs of the country and modifications were made accordingly (Additional file 1-2).

Data collection

Individuals on the recruitment list were invited to participate in the survey through email; the recruitment email explained the purpose of the study. Invitation emails were sent on 8 February 2022 and two reminder emails were sent to recipients who didn't respond on 14th and 21st February 2022.

The survey was open for a period of 4 weeks (8 February to 6 April 2022) and responses were collected using Google forms. Following the online survey, a focus group discussion was held on April 19, 2022, with purposively selected participants (Additional file 3).

Data analysis

The survey responses were downloaded in spreadsheet format for cleaning and exported to SPSS version 27 for analysis. Qualitative responses were analyzed based on Cooke's Capacity building of health research framework¹² which includes 6 themes: building skills and confidence, developing linkages and partnerships, ensuring the research is 'close to practice', developing appropriate dissemination, infrastructure, and sustainability and continuity and presented in narratives and tables.

Ethical clearance

An exemption for Ethical approval was obtained from both SPIRHR and Guttmacher Institute. All participants gave informed consent for the use of their data. The consortium contacted participants directly for participation via email, using an "opt out" approach to gain consent. Participants were not compensated in any way (cash or kind) for their participation in the study.

Results

Characteristics of respondents

We received responses from 13 researchers and 18 stakeholders, with a response rate of 20.6% among

Table 1: Characteristics of respondents, a study on the assessment of abortion research-related experience, skills, and interests

Characteristics	Stakeholders (n=18)	Researchers (n=13)
Profession	N (%)	N (%)
Physician	6 (33.3)	3(23.1)
Non-profit organization leader	4 (22.2)	-
MPH	3 (16.7)	1(7.7)
Health Officer	2 (11.1)	3(23.1)
Health Informatics	1 (5.6)	-
Midwife	1 (5.6)	4(30.8)
Nurse	1 (5.6)	1(7.7)
Demographer	1(7.7)	1(7.7)
Area of specialization (values don't add 100%)		
Public Health	11 (33.3)	4(20.0)
Abortion	9 (27.3)	7(35.0)
Family Planning	7 (21.2)	5(25.0)
Oby. Gyn.	3 (9.1)	1(5.0)
MRH	2 (6.1)	2(10.0)
Population study/demography	1 (3.0)	1(5.0)
Institutional affiliation		
University/Research institute	10 (55.6)	11(84.6)
NGO	8 (44.4)	2(15.4)
Current position		
Expert/Professional/instructor/ researcher	11 (61.1)	11(84.6)
Senior advisor	3 (16.7)	-
Organization head	3 (16.7)	-
Unit leader	1 (5.6)	2(15.4)
Designation/ career level		
Assistant professor	5 (27.8)	6(46.2)
Clinician (MD, REI specialist)	4 (22.2)	1(5.0)
Service director/advisor	3 (16.7)	-
Program head /Coordinator	3 (16.7)	1(5.0)
Lecturer	2 (11.1)	4(30.8)
Researcher	1 (5.6)	1(5.0)
	Mean(SD)	Mean(SD)
Total experience in year	13.4 (9.0)	9.6 (4.1)
Experience in abortion related work	7.5 (5.1)	6.2 (3.5)

Note: SD: Standard Deviation

researchers and 62.1% among key stakeholders. Most stakeholders were physicians (33.3%), public health specialists (33.3%), affiliated in universities and research institutions (55.6%), experts/researchers (61.1%) and held a rank of an Assistant professor (27.8%). Similarly, most researchers were midwives (30.8%), abortion specialists (35.0%), affiliated with universities and research

institutions (84.6%), experts/ researchers (84.6%) and held a rank of an Assistant professor (46.2%). Participants had an average of 13.4 and 9.6 years of overall work experience and 7.5 and 6.2-years' experience in abortion among stakeholders and researchers, respectively (Table 1).

Challenges to conducting abortion-related research in Ethiopia

The main challenges that required focus and strengthening that came out of the needs assessment process that included online survey and focus group discussion are organized by the six domains of Cooke's framework¹² (Figure 1).

The main barrier to conducting abortion research identified by respondents was methodological/skill gaps, which included difficulty in finding and recruiting participants who had undergone an abortion to obtain accurate information. Respondents also reported negative attitudes towards abortion, religious beliefs interference, and lack of interest among researchers and mentors as significant challenges to conducting abortion research in Ethiopia. In addition, respondents identified several issues that may not directly relate to research capacity but are important to consider in the broader context of strengthening research capacity in Ethiopia. For example, respondents noted that their research findings were not implemented due to a lack of skills in communicating research results and engaging policymakers effectively. Respondents also reported that some abortion research responds more to funders' ideas than the sociocultural context, which can limit the relevance and impact of the research. Short summaries of the main issues identified from the focus group discussion and the open-ended questions in the survey are listed in Table 2.

Skill and confidence building

The respondents identified methodological/ skill gaps as the main barrier to conducting abortion research in Ethiopia (Table 2 points 1.1-1.4). Researchers reported difficulty in finding and recruiting participants who had undergone an abortion to obtain accurate information. In addition, they lacked specific methodological analysis skills and experience, such as analyzing data from social

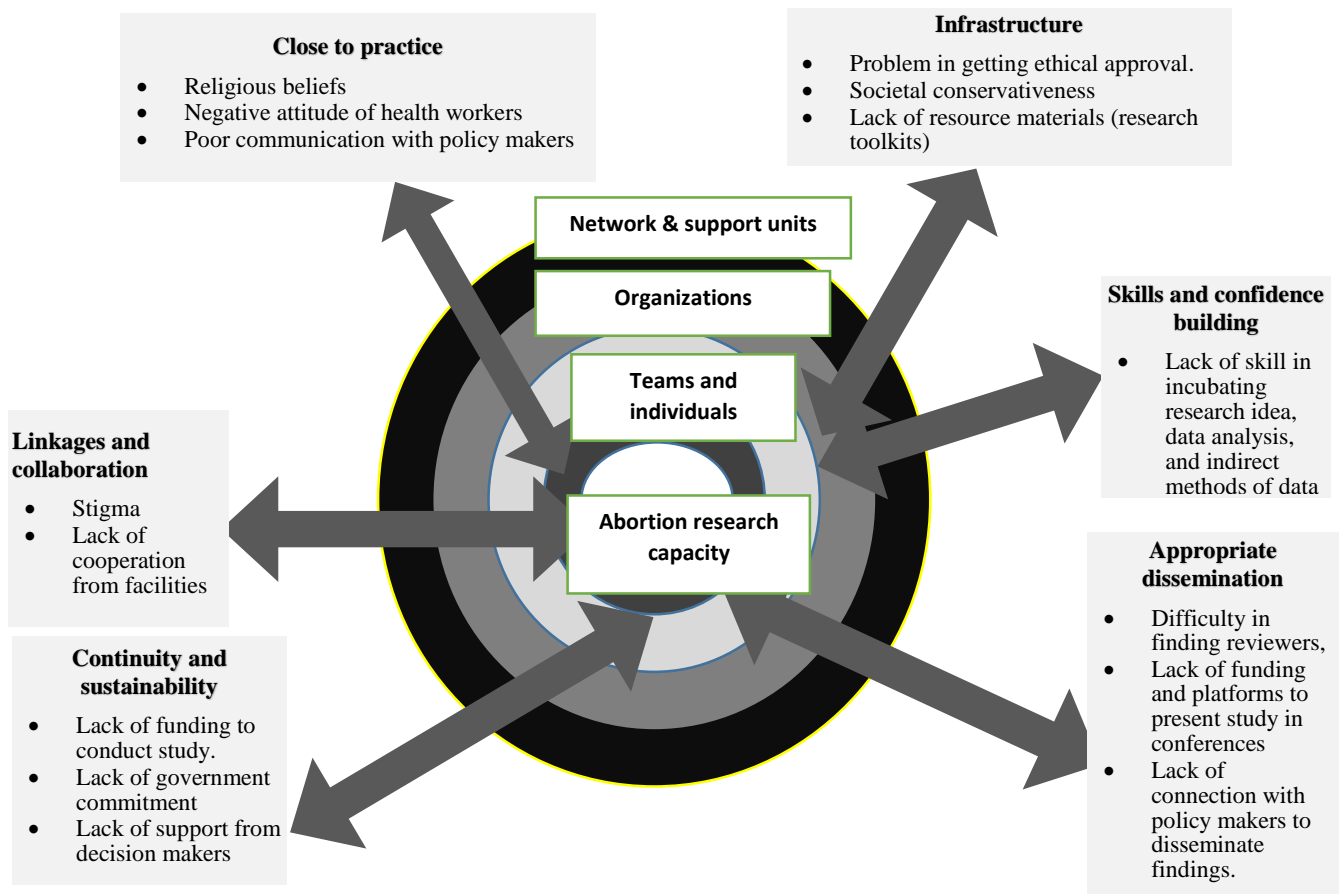


Figure 1: Key findings of the assessment of abortion research related experience, skills, and interests in Ethiopia

network-based indirect methods like the Network Scale Up Method (NSUM), Confidante method, or through respondent driven sampling methods.

“When I look proportion of rape in one of the studies; it was 86%. In fact, this was not true; respondents were forced to report as ‘raped’ to get the service per the legal preconditions. Hence, reporting this may affect the image of the country or need caution to discuss very well and reporting the limitation”. (Researcher)

“Numbers on abortion are hard to get hold of as there is no national registry for abortions that I have come across”. (Researcher)

Respondents noted that abortion-related research has not been a priority area for researchers in Ethiopia, and skills around abortion-related research have not been adequately cultivated. Therefore, local research outputs are not robust enough to inform policy. Most respondents (84.6%)

reported that training on using qualitative techniques and conducting systematic reviews and meta-analysis could advance their participation in abortion research, and the majority (76.9%) mentioned mentorship programs and short-term training as the way to transfer these skills.

Close to practice

Negative attitudes towards abortion, religious beliefs interfering in the research process, and the failure to involve policymakers and government from the beginning were also identified as challenges to changing local practice based on research findings. Respondents recommended developing skills in communicating research results and engaging policymakers effectively, as well as ensuring that research responds more to the sociocultural context than to funders' ideas (Table 2 points 2.1-2.5).

Table 2. Summaries of key points as per the framework for capacity strengthening on abortion research

Point number	Summary
Skill and confidence building	
1.1.	Lack of knowledge in tracing participants who had an abortion to get appropriate sample and accurate information; researchers attempt to employ data collection techniques that are used to study other subjects as exit interviews which are not suitable for respondents who had an abortion.
1.2.	Lack of skill in translating research findings into practice
1.3.	Lack of skill in conducting systematic review and meta-analysis, usually abortion research is narrow in scope
1.4.	Lack of skills to analyze qualitative and quantitative data as well as data collected through indirect methods of collecting abortion information like the NSUM, Confidant and GoC methods
1.5.	Lack of interest in general (by researchers as well as mentors) due to different reasons as religious, cultural, and political perspectives
1.6.	Focusing only on problems – There is a very big achievement in the past 30 years around abortion and this should be considered, and efforts should be made to use opportunities instead of focusing only on problems
Close to practice	
2.1.	Research often not disseminated because researchers failed to involve policy makers and government from the beginning
2.2.	Researchers lack skills in communication, preparing policy brief etc. to engage policy makers effectively
2.3.	Abortion research undertakings are usually based on funders idea and lack sociocultural context
2.4.	Negative attitude of health workers on abortion: <i>The criteria asked (by officials or heads) to conduct an interview/survey in a private sector and lack of motivation to discuss abortion issues in some public institutions</i>
2.5.	Religious beliefs interference in the process
Linkages, partnerships, and collaborations	
3.1.	There is self-report bias due to sensitivity of the issue
3.2.	Client fear of stigma to express themselves
3.3.	Difficulty in identifying health facilities providing abortion care, getting ethical permission at facility level to conduct the study (especially private and non-governmental facilities)
3.4.	Donor's lack of interest on a long-term effect such as research, they focus on project implementation
3.5.	Lack of cooperation from health facilities providing abortion care
Appropriate dissemination to maximize impact	
4.1.	Poor quality of research outputs which have less chance to be accepted and published as well as presented in different conferences
4.2.	Lack of planning from the outset on dissemination
4.3.	Difficulty in finding reviewers
4.4.	Lack of funding to pay for publication charge, language editor
4.5.	Lack of funding to present study in conferences
4.6.	Some publishers don't want to publish this topic
4.7.	Only a handful of committed organizations working towards its realization
4.8.	Lack of platforms to present study findings
Infrastructure	
5.1.	Lack of appropriate data and evidence since the issue is too sensitive
5.2.	There is no platform that organize literature and make it available to researchers
5.3.	Lack of tools to standardize abortion data collection which makes comparison of abortion data difficult

Linkages, partnerships, and collaborations

Poor networking, building partnerships, and collaboration skills were identified as a significant issue in Ethiopia (Table 2 points 3.1-3.5). Respondents reported that there is poor linkage between the practice world and academia, making it difficult to get ethical permission at facility level

(especially private and non-governmental facilities), get donors who are interested in abortion research, and engage health facilities providing abortion care in research. Respondents recommended building trust with different groups and individuals to enhance information and knowledge exchange. These issues are illustrated by the following quotes from respondents:

“Due to stigma, it was difficult to conduct at the community level”. (Researcher)

“While thinking research ideas, I worry about the respondent’s status and sensitivity of the issue in Ethiopia”. (Researcher)

“The criteria asked (by officials or heads) to conduct an interview/survey in a private sector and lack of motivation to discuss abortion issues in some public institutions”. (Researcher)

Appropriate dissemination to maximize impact

Respondents expressed a desire to disseminate their research findings but reported a lack of funding to pay for publication charges and travel fees to present studies at conferences (Table 2 points 4.1-4.8). Some of these issues are illustrated by the following quotes from respondents:

“Travel and accommodation cost is a challenge to disseminate results. I was forced to cancel my presentation because of financial scarcity”. (Stakeholder)

“Until recently, forums that bring unpublished local evidence in the field were not widely available. Most data were not shared frequently or published on time”. (Stakeholder)

“Most research is only on the shelf”. (Stakeholder)

Lack of communication skills among researchers was also identified as a challenge to translating research evidence into policy briefs to engage and convince policy makers to advocate for policy change for such culturally and religiously sensitive issues.

Continuity and sustainability

Respondents mentioned that sustainability of research activities is challenged by a lack of funding and government commitment to prioritize and invest in abortion research. Lack of evidence sharing platforms not only affected dissemination but also discouraged researchers from conducting further research when their findings did not have an impact. Respondents recommended establishing evidence-sharing platforms and prioritizing funding for abortion research. These issues are illustrated by the following quotes from respondents:

“Though there are supportive documents, still we notice weak government commitment during implementation quite recently”. (Stakeholder)

“Lack of support from policy makers and other decision makers due to their negative attitude towards abortion”. (Stakeholder)

“None of policy makers are interested. I presented my research at different conferences, even in the presence of current ministry of health but none of them are interested to use and apply the research outcome”. (Researcher)

Infrastructure

Finally, lack of platforms that organize literature, lack of resource materials comprising the local context, such as research toolkits to measure abortion-related topics as validated tools to measure competence for health workers, lack of funding, and difficulty getting ethical approval were also identified as challenges (Table 2 points 5.1-5.3).

Discussion

Our study, consistent with previous studies¹³⁻¹⁵, identified that the main barrier to conducting abortion research in Ethiopia was methodological/skill gaps. To address this challenge, we recommend providing specific substantive and methodological training to researchers, supported through training, mentorship, and supervision to design and undertake research. This has also been indicated in different studies from other settings, in which the need to develop research skills can be supported through training, mentorship and supervision¹⁶⁻¹⁹.

Our finding, in line with reports from other contexts^{17,20,21}, also highlight the need to engage practitioners and services, policy makers, and service users to generate relevant and useful research questions, which will improve the quality of abortion research being conducted and ensure its measurable impact on abortion service provision and sexual and reproductive health.

Building partnerships and collaborations is integral to capacity building by which research skills and practice knowledge is exchanged, developed, and enhanced, and research activity conducted to address complex health problems^{14,17,20,22-24}.

However, our study demonstrated that there is poor linkage between the practice and academia, and insufficient trust being established between these two spheres. One of the main dreams of researchers is to increase the application of evidence in decisions and policies²⁵ and the impact of abortion research can be illustrated through dissemination of research through different platforms^{18,22,26,27}. However, researchers in Ethiopia lack evidence sharing platforms, interested reviewers and publishers, which not only limit dissemination opportunities but also discourage further research. As noted by other researchers^{19,28-32}, inadequate communication/networking skill was also a major challenge.

Our assessment found that sustainability is challenged by lack of funding. Long-term funding of such research is necessary for the skills and expertise of the research mentors and supervisors become fixed^{1,23,33,34}. However, a lack of government commitment to prioritize and invest in abortion research is an obstacle to the continued application of skills to research practice.

A strong message from our needs assessments was that the issues of infrastructure such as resource materials comprising the local context including research toolkits, standardized tools, and funding to the success of Ethiopian researchers. As other studies have recommended, structures and processes that are set up to enable the smooth and effective running of research projects, protected time and backfill arrangements as well as funding to support this may reduce barriers to participation and enable skills and enthusiasm to be developed^{12,16,17}.

One strength of our study was the diverse range of respondents involved, allowing the collection of representative perspectives from actual experiences. In addition, data were collected by different methods which helped us to minimize the tendency for certain types of normative opinion to emerge while obscuring some controversial perspectives and certain participants may dominate the whole discussion in case of FGDs. However, a limitation of this study was the small response rate from the online survey, especially from researchers who were most likely to have responded. Moreover, we only know the views of those engaging in abortion research, not those who may want to or tried and failed to do so, which would shed light on further gaps.

Conclusion

In conclusion, our study highlighted several challenges related to capacity for conducting abortion-related research in Ethiopia. To address some of these challenges, we recommend investing in building the skills and confidence of researchers to conduct robust research through tailor-made training and open access to resource materials on abortion research. Developing data visualization platforms and establishing a means to communicate research findings with relevant stakeholders can also enhance the quality and impact of research.

In addition, we recommend reactivating already existing partnership fora such as CORHA to facilitate regular interaction between the research community and policy makers. Jointly seeking funding to support locally relevant research activities can also strengthen research capacity. Such consortia would help ensure two-way communication between all relevant stakeholders with the aim of using existing and future research works to influence policy and program decisions in a sustainable way. We believe such approach is more likely to generate changes in policy and practice that make tangible and sustained improvements to the plight of the people in Ethiopia with regards to abortion-related issues.

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