

Qualitative Study Protocol

## A Qualitative Multi-Methods Research **Protocol: Applied Research Ethics in the** Middle East North Africa Region

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#### **Abstract**

In generating new knowledge in all fields related to human subjects research, research ethics is key. The Middle East and North Africa (MENA) region has witnessed a remarkable increase in research involving human participants, but robust contextually relevant guidelines and local capacity to guide ethical research are lacking. The research protocol presented and discussed here represents the methodology used to assess the landscape of applied research ethics in the region from the narratives of several constituencies in the research process, namely researchers, research ethics committee chairs and directors of research institutions. The study is a three-year multi-phase, multi-method research which involved a sequence of phases starting with a desk review, writing country reports, focus groups, and in-depth interviews, followed by a regional survey. The lead research team worked with country teams in 6 sites in the MENA region to conduct the empirical research which will be described in detail and reflected on for rigor and challenges.

#### **Keywords**

focus groups, methods in qualitative inquiry, mixed methods, narrative, narrative analysis

## **Background/Study Justification**

Applied research ethics with human subjects has long been perceived as an obligation by researchers to provide accurate and reliable research data, adhere to moral norms of academic integrity, and safeguard against the adverse impact of defective research on people's lives (Brall et al., 2017; Hammersley, 2018). Historical landmark research incidents in the 20th Century, such as the Nuremberg medical trials on war prisoners by German doctors, the Tuskegee study on men of color to observe the progression of syphilis (Pressel, 2003), the deceptive Milgram experiments in social psychology, and the Stanford experiments on the psychological effect of power on prisoners (Levine & Skedsvold, 2008) have brought to public attention the detrimental consequences of unethical clinical and social behavioral research methodologies. Consequently, a number of codes and guidelines have been put forth to guide research involving human subjects, such as the Nuremberg Code that instills consent of human subjects to participate in research, the Declaration of Helsinki, that protects patients in medical research, and the Belmont Report

which outlines the three principles to protect participants in biomedical and behavioral research, namely, respect for persons, beneficence and justice (Childress et al., 2005). In turn, institutional review boards (IRBs) have also been established to review and regulate human research conduct in the US and other countries, and have become an integral requirement for research (Silverman, 2017; Speiglman & Spear, 2009).

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However, some low-income countries of the world either do not have functioning IRBs or suffer from inadequate resources for research. In such settings, North-South international research has been shown to be more exploitative of vulnerable populations-a situation, coined as "ethics dump" by the European Commission (2015), describing the exploitation of non-European populations, because of prohibitions to the research in the high-income country, insufficient applied ethics on the part of the researcher, or inadequate research governance in the receiving country of the South (Schroeder et al., 2018). There are many documented clinical trials and other studies that fit this description in India, South America, Africa and China for example (Schroeder et al., 2018; Teixeira da Silva, 2022). Unethical research behaviour or "ethics dumping" is prevalent in contexts of conflict and fragility where unequal power dynamics are reproduced between researchers from the Global North and Global South where unethical research conduct spans the research study ecosystem (Shanks & Paulson, 2022). For example, unethical research practices took place in Iraq during efforts to liberate Mosul from the control of the Islamic State of Iraq and the Levant, where "fixers" were employed to access research populations, without informed consent, repeatedly interviewing Yezidi women who had just escaped sexual slavery while offering no psychological support, commodifying and objectifying research participants, and not validating the results (Shanks & Paulson, 2022). Other examples of unethical research practices in the MENA region have also been documented by Sibai et al. (2019) and in relation to the Syrian crisis by Sukarieh and Tannock (2019).

Inherent characteristics of the MENA region set the stage for challenges in human subjects research. Chronic poverty, protracted and concurrent armed conflicts, political unrest and ensuing multiple vulnerabilities-all which have caused considerable forced migration and population movements within and across national borders. A scoping review of publications with war affected populations in the region between 2000 and 2013 points to deficits in institutional approval and informed consent (Makhoul et al., 2018). This indicates that the system of research governance is lagging (Silverman, 2017) despite an increase in the number of academic research institutions and in collaborative funding for human subjects research (Chin et al., 2011; Neitzke, 2012; Sleem et al., 2010; UNESCO, 2009). The lack of culturally and contextually sensitive frameworks to guide research practice and oversight is expected given that regulations and guidelines have been adopted from western or international standards (Sleem et al., 2010), and that research ethics is not yet a customary practice in the region (Silverman, 2017). Previous research in Lebanon and Qatar reported on challenges in outreach and communication from IRBs (Makhoul et al., 2014) and disjunctions between IRB requirements and practice (Nakkash et al., 2017). The COVID-19 pandemic shifted the focus to research proposals and resources on the that issue (Alahmad et al., 2021; Allam et al., 2020). A Scopus search on

COVID-19 research in the Arab world revealed that 4.26% of global research output on COVID-19 was produced in the Arab world with Saudi Arabia, Egypt, and the United Arab Emirates producing the most research (Zyoud, 2021). There is thus a significant need to analyze the research ethics landscape in the region to identify limitations and challenges to the application of ethical research conduct. Regional leadership in this area can use the findings to promote a research culture by strengthening the quality of research, reducing research waste, and safeguarding the well-being and rights of research participants. The study has implications for other regions of the world.

The study titled "Mapping Drivers, Capacities and Needs for Research Ethics in the Middle East and North Africa" funded by the International Development Research Center is a three-year multi-component, multi-stakeholder and multi-method methodology. It began in 2020 and aimed to assess practices, resources, structures and gaps for ethical research conduct in the MENA region. It engages researchers, ethics committee chairs, and research center directors across six countries through focus group discussions (FGDs) and in-depth interviews (IDIs). Engaging local research teams who are familiar with the research context in their countries and speak the languages facilitated communication and prevented "helicopter research" where researchers from the Global North are brought to conduct research in the Global South (Nature, 2022).

Against this background, the specific objectives of the study were to:

- Map existing capabilities, training initiatives/continuing education, practices and structures for applied research ethics in contexts of fragility using rigorous methodological inquiry;
- Explore the role of the social and structural determinants on research resources, practices and conduct;
- Determine needs/gaps in capabilities, training initiatives/continuing education, practices and structures for applied research ethics in contexts of fragility using rigorous methodological inquiry.

In this article, we describe in detail the study methodology reflecting on the decision-making instances, the research process, and challenges in each phase. The study started with an extensive desk review of relevant websites, literature, e-courses and grey literature, and then moved forward with empirical qualitative research in the country sites. The study and its preparations took place during the COVID-19 pandemic, a situation which enabled reach and communication with the country teams, but also forced us to rely on virtual data collection and induced changes to the way we had envisioned our empirical process.

## Theoretical Framework

The objectives of this study draw attention to the influences of the broader factors that affect how responsible research

conduct is perceived and applied in MENA. We were therefore inspired by 1) the Brall et al. (2017) framework and 2) the socioecological model (SEM). Brall et al. (2017) characterize the research relationship as a complex web of relationships with other entities where the researcher is at the heart (Supplement Figure 1). This framework posits that research ethics and the researcher are in fact embedded within a network of stakeholders and responsibilities, that accounts for the wider research environment and its social dimensions (Brall et al., 2017). In this model (termed Research Ethics 2.0), the researcher interacts with and is influenced by various stakeholders which include: "research subjects, colleagues, editors/ publishers, professional associations, universities, funders, and society at large" (Brall et al., 2017, p. 30). We expanded this list to include research ethics committees and research institutions. Additionally, the socio-ecological model (SEM) has been widely used to explain the multiple levels of influences portrayed in the model as nested circles. Behaviors of interest are in the center and are dependent on the interpersonal, organizational, community, and wider political and national factors (Daley et al., 2011; Kilanowski, 2017; Sallis et al., 2008). We developed a SEM for the purpose of this study with research conduct at the center, surrounded by factors at the university, country, regional, and global levels that include barriers or enablers for ethical research conduct [insert Figure 2]. Findings from previous research (Makhoul et al., 2014, 2018; Makhoul & Nakkash, 2017; Silverman, 2017) and the online desk review point to issues in research governance, guidelines, and resources. The interview guides for the FGDs and the IDIs were thus designed to explore this research ethics landscape and included questions about the barriers and enablers that researchers, research centers, and research ethics committees face at university, country, regional, and global levels while probing about trainings, guidelines, resources, donors, and agendas.

## **Methodology**

The study design employed a phased methodology consisting of conducting a desk review for background information relevant to the research topic, and the writing of country reports; empirical data collection using FGDs and IDIs; and an online survey. We are reporting on the qualitative data collection only, as the survey has only recently been launched and data are still unavailable. These phased methods were interrelated, so that findings from one phase fed into the next (Supplement Figure 2). The desk review explored research ethics guidelines in a purposive sample of regional journals, social science research centers, and online research ethics courses, as well as regional and international publishers, predatory journals, and relevant information from UN agency websites. Following that, we selected six countries from the MENA region for in-depth empirical research, and added country teams of two researchers from each country: a focal person and a research associate. The countries were selected according to a rigorous process (explained below) and included Morocco, Tunisia, Egypt, Jordan, United Arab Emirates, and Oman. Focal persons from these countries developed country reports that described the research and research ethics landscape in their countries. Lebanon was not included because it has already been studied by the research team in a previous study; and with the ongoing multiple economic, financial and refugee crises, it would have been almost unethical to explore research ethics when there are so many pressing needs in the country.

Findings from the desk review and the country reports informed the development of the interview guide for the FGDs. Focus groups are well suited to explore new topics and to obtain timely data from participants on a topic of interest because the interaction allows for the emergence of new perspectives (Kitzinger, 1995; Tolley et al., 2016). A moderator/facilitator helps participants collaboratively explore their perceptions and thoughts in a supportive atmosphere (Sparkes & Smith, 2014). Research participants in the FGDs included researchers in the biomedical/health and social sciences fields from universities and research centers.

The findings from the FGDs were then used to develop interview guides for the IDIs with research center directors and IRB chairs. We held IDIs to delve deep into the perspectives of individual participants through a conversation with a purpose (Sparkes & Smith, 2014). IDIs utilize openended interview guides that reflect the basic themes and subthemes of the research question to direct the interaction while giving interviewees flexibility in expressing their thoughts and feelings (Sparkes & Smith, 2014; Tolley et al., 2016).

The final phase consisted of developing an online survey that aims to capture the perceptions and self-rated capabilities for research and applied research ethics, and the resources available for researchers engaged in human subjects research in the MENA region as a whole. The questionnaire was informed by the literature and the findings from the previous phases. The online survey was disseminated within the research networks and centers of the research and country teams, and aims to provide a description of the range of views held by participants about their research ethics capacities and resources available to them. An online survey would allow collecting data from a larger number of researchers across the MENA region, offers cost saving advantages, and allows for easier data analysis (Van Selm, & Jankowski, 2006; Wright, 2017).

## Sampling and Recruitment

The sampling and recruitment strategies followed were similar to the original plan set out by the lead study team for each phase. In some instances, the sampling strategy for the empirical research varied with input from the sites and was influenced by contextual factors including COVID-19, feasibility and common practice in each country site. We will

describe below the sampling strategies for each phase with an explanation of changes.

## Selection of Study Sites

We originally planned for our study to involve 8 countries on the region, two from each of the three groupings of countries in the WHO-EMRO region, as defined in economic terms by The World Bank (n.d.), in addition to two from a fourth category of countries, which could fall into one of the three, and are experiencing conflicts, war, or occupation. Other criteria used to guide the selection included university research activity and research output, and the presence of national legislation or structures, such as IRBs and professional associations.

After consultation with the American University of Beirut (AUB) librarian and library resources, QS Arab Region Rankings and Scimago Institutions Rankings were identified to be prestigious university ranking indicators with information on regional universities and good research output indicators. The QS Arab Region Rankings includes indicators on international research networks, citations per paper and papers per faculty, while the Scimago Institutions Rankings has research indicator weighing 50% with indicators on output, number of journals published by the institution, number of documents published in journals not by the institutions ("QS World University Rankings: Arab Region methodology, 2022"; Scimago Institutions Ranking, n. d.). The higher the ranking and the more the numbers of ranked universities signifies that the country has universities which are active in research. Countries with no ranked universities were excluded.

We added a holistic measure of fragility to include societal, economic, political, and security aspects. We searched the web with Google search engine using the query fragility indicators OR fragile index OR state fragility measure|ranking lang(English). A search using the limit for Arabic language had resulted in no results on fragility measures specific to the Arab world. Indices that do not rank countries, do not include Arab countries, or only measure violence or political instability were excluded, and the choice rested on the Fund for Peace Fragile States Index. This index adopts a rigorous methodology that triangulates content analysis, quantitative and qualitative data (Fragile States Index, 2018a, 2018b). The higher the rank, the higher the fragility of the country. Another important consideration in the choice of countries was the availability of potential contact persons by the research team.

The nine countries chosen based on all the above included Oman, Jordan, Morocco, Egypt, Bahrain, Saudi Arabia, Iraq, Sudan, and Somalia. Qatar and Lebanon were not shortlisted because the research team had already conducted studies on research ethics there. Somalia, Sudan, and Iraq had been selected, particularly to include countries that have a less active research landscape and that are experiencing fragility. However, Iraq, Somalia and Sudan had to be excluded because

of one or more concerns by the funding agency and the University: local safety protocols in COVID-19, security risks for researchers, and the inability to transfer funds. Bahrain and Saudi Arabia were also dropped due to the political tensions between Lebanon and the two countries at the time. Based on the above criteria, the following six countries were chosen: Morocco, Tunisia, Egypt, Jordan, United Arab Emirates, and Oman, representing an array of countries of the region.

## Recruitment of the Country Site Teams

Following the selection of the country sites, the lead research team communicated identified a country focal person with assistance from their networks, and who then identified a research associate with the necessary research and communication skills-resulting in twelve team members in total. The lead team at AUB consisted of principle investigators and a research coordinator. Both principle investigators are professors with doctoral degrees in public health, are Lebanese with a good understanding of the region, are native Arabic speakers, and have extensive experience in conducting qualitative research and research around applied research ethics in the region (Makhoul et al., 2014, 2018; Makhoul & Nakkash, 2017; Nakkash et al., 2009, 2017). The research coordinator has an MA in Development Studies, is a native Arabic speaker, and has adequate theoretical and practical understanding of qualitative research methodologies after receiving further qualitative research training.

The focal persons and research associates are senior researchers in a variety of fields including medical and health professions, anthropology and social sciences. The majority are affiliated with higher education institutions in their countries. Individual virtual meetings to discuss the study, terms of reference and timeline were conducted. Examples of the tasks conducted by focal persons include applying for and obtaining IRB approval from the site, recruiting participants, and writing country reports; while the research associates were charged with holding the FGDs and IDIs, transcribing and data coding.

# Preparation Process and Recruitment for the Focus Group Discussions & SSIs

Recruitment for the FGDs and the IDIs began in March 2022 and October 2022 respectively (Supplement Figure 3). The country teams developed and shared detailed data collection plans for their countries after discussing an overall strategy and participant inclusion criteria through a joint virtual meeting. We developed the draft interview guides, invitation scripts, and consent forms first in English and shared them with the country teams for feedback. We then translated them into Arabic, the main language spoken in these countries. Prior to commencing data collection, a virtual meeting was held with all the country teams during which the AUB team

discussed all the study documents and provided an overview of the FGDs, and JM moderated a mock FGD to demonstrate the dynamics of virtual FGDs. Research associates were followed up by the research coordinator (CE) through meetings and emails, and another virtual meeting was held as FGDs were being conducted to reflect on challenges, and to explain the coding process.

Focus group discussions sought to engage active researchers from the biomedical/health and social and behavioral science fields recruited using a unified invitation script, which was emailed to active researchers using the websites of their universities/research institutions, or department chairpersons to communicate the invitation. Inclusion criteria comprised gender, senior and junior researchers, and insitution type (public, private universities and research centers). Research associates proposeed recruiting through snowball sampling where one participant would suggest another to ensure diversity of backgrounds.

The IDIs intended to collect data from two research ethics committee chairs and two directors of research centers in each country. Participants whose names and contact information were publicly available through their institutions were approached based on one or more inclusion criteria: size of the research center, years of activity, affiliation (governmental, independent think tanks), and field of research (social sciences, biomedical/health). Inclusion criteria for the REC chairs included affiliation and fields (biomedical/health or social sciences). Recruitment utilized an email invitation script to potential participants.

#### **Data Collection**

The country research teams shared the information about the study using the AUB-IRB approved invitation script emailed to potential participants. Once intent to participate was confirmed, the study consent form was shared through email and participants emailed back a signed version to the country research associate. Both FGDs and IDIs were conducted in the spoken language which was one or more of English, Arabic, and French.

Two FGDs were conducted independently and virtually in each country between March and July 2022 because of the COVID-19 pandemic. Virtual FGDs allow for participation despite geographical proximity, and afford participants greater confidentiality and anonymity, especially if they choose to turn off their videos. They also allow participation from familiar settings in the comfort of their homes or offices (Woodyatt et al., 2016). Participating researchers joined from different geographical areas in the countries of the study, which reduced cost of travel and allowed reach to distant areas.

A total of 85 researchers participated in the 12 FGDs with 49 biomedical/health researchers and 36 social science researchers using an interview guide of open-ended questions (Supplement Figure 4). Researchers were from different

disciplines with biomedical/health disciplines including medicine, nursing, pharmacy, dentistry, allied health sciences; and social sciences and humanities including disciplines such as psychology, international relations, anthropology, sociology, political science, media, mass communication, economics, gender studies, literature, and law. The vast majority of the participants in the FGDs were senior/experienced researchers in their field and were affiliated to one or more public or private universities, independent research centers, ministry of health, research lab, and governmental hospitals.

The interviews were conducted in-person between November 2022 and January 2023 while observing the COVID-19 country precautionary measures, and after the FGDs were coded and preliminary findings emerged. Separate interview guides of open-ended questions were developed and used (Supplement Figures 5 and 6). Questions about COVID-19 were added to capture the changing practices brought on by the pandemic. We interviewed a total of 25 participants: 7 social sciences and 7 biomedical research center directors; and REC chairs: 7 biomedical and 4 social sciences.

## **Data Analysis**

The FGDs and IDIs conducted virtually and in person were recorded using the Zoom application or a digital recorder. The recordings were immediately transcribed verbatim in the language they were conducted by transcriptionists in the country sites, de-identified and verified by the research associates, and saved on password-protected computers of the country teams. The transcripts were coded in each site using an open coding system. We used thematic analysis using the 6-stage framework by Braun and Clarke (2006) which includes: familiarization with the data, generating initial codes from interesting features of the data that form the basis of the patterns or themes, sorting the codes into possible themes, reviewing the themes to ensure they capture the coded data, defining and naming the themes and sub-themes, and write-up.

The research associates performed several readings of the transcripts for immersion in the data. The research associates translated excerpts from the French transcripts into English to allow the AUB team (not proficient in French) to participate in the coding verification process. The teams had previously been guided on the coding process in a virtual meeting, and had been provided with examples and a written step-by-step process. They subsequently conducted open-coding on their transcripts with close supervision and follow-up through meetings and/or emails with the research coordinator. Only coded excerpts of the first 2 or 3 pages of the first FGD and IDIs were shared by each research associate with the research coordinator; and pairs of research associates peer reviewed each other's codes. Each research associate subsequently continued coding the rest of the transcripts and transferred the codes on a matrix developed by the AUB team. Three matrices ensued, populated with incoming codes from the six country sites (one for each of the biomedical/health sciences and social sciences FGDs), one for the interviews with REC chairs and one with the research institute directors. The lead team analyzed the data and shared the preliminary results with the country teams in in-person meetings in Jordan (January 2023) and in Lebanon (March 2023).

## **Research Ethics**

The multi-phase nature of the research study necessitated separate ethics oversight for each phase. IRB approvals were obtained from the Institutional Review Board at the American University of Beirut for each phase (SBS-2021-0295) on January 25, 2022 for the FGDs, and (SBS-2022-0196) on September 27, 2022 for the IDIs. IRB approvals were obtained from country sites where available, namely, Jordan University of Science and Technology Institutional Review Board (Ref.: 10/142/2021) on July 11, 2021, UAE (United Arab Emirates University Ref Number ERS\_2022\_8469), and Oman Medical Research Ethics Committee (MREC), College of Medicine and Health Sciences, Sultan Qaboos University-(REF. NO. SQU-EC/614/2021) on October 6, 2021. The other three countries did not require an ethics review for social science research, and consequently, AUB-IRB approval sufficed. All participants provided written informed consent prior to enrolment in the study. All members of the country teams completed the Collaborative Institute Training Initiative (CITI) (n.d.) online ethics training or the University of Montana training in the case of no CITI (Online Research Ethics Course, n.d.).

Research ethics can be considered a sensitive topic in some contexts. Researchers might be wary about critiquing the situation in their institutions or countries, particularly where there is monitoring and censorship by the state and in the absence of democratic institutions. This concern was reported to be aggravated in one virtual FGD. To minimize the risk of anonymity breach, one country focal person who was helping recruit participants suggested that members keep their cameras turned off and use pseudonyms; however, the research associate communicated her concern that requiring such measures would make the participants apprehensive and hinder the flow of the discussion. Allam et al. (2020) concur that this is a challenge of online research in authoritarian contexts such as MENA where digital technologies could become means for "state surveillance and crackdowns, raising concerns surrounding the security and safety of research subjects" (Allam et al., 2020, p. 9). In this case, JM communicated with the facilitator and they both decided that she joins the start of the virtual FGD to introduce herself, personally welcome the participants and present the study. This step was well received and enhanced the group dynamics in this FGD.

## Rigor

We refer to the Consolidated Criteria for Reporting Qualitative studies (COREQ) developed by Tong et al. (2007) that

promotes explicit and comprehensive reporting of qualitative studies, and relates to three domains:

#### The Researchers

The characteristics and qualifications of the principal investigators and research coordinator as explained in the Methodology section enabled them to lead the study and follow-up on the research process. The lead team communicated regularly with all the country team members, through one-on-one meetings and drew attention to research ethics throughout the research process. The researchers have clarified their identity, credentials, expertise and qualifications for the study, and this has therefore enhanced the credibility of the findings. In addition, the researchers have reflected on their positionality or relationships to the participants in the FGDs and IDIs, and explained their roles/relationships with them where applicable. This interaction between the researchers in the country teams and their participants did not influence either parties' interaction in the FGDs and interviews, or inhibit discussions. There were no conflicting interests or previous relations between any of them beyond their professional networks.

#### The Research Design and Methods

We have explained the theoretical frameworks we used to guide the study design and implementation of the methods. The complex research study design involving phases, multistakeholders, multi-methods and multi-country sites necessitated consistency in all processes and decision-making. Participant recruitment followed a purposive sampling method where the inclusion criteria were clearly outlined and communicated in the consent forms used and the meetings with the country teams to guide them in recruitment. This theoretical sampling method is utilized in qualitative research where researchers choose participants based on certain features that are deemed able to contribute to the emerging data to answer the research question (Robinson, 2014). The ensuing characteristics and number of participants and context in which the virtual data collection took place are presented. The interview guides, consent forms, and invitation scripts were finalized based on written and verbal input from the country teams. This study applied triangulation through the use of more than one method and involved various stakeholders in the research process to generate data and complete the picture about the practice and conduct of ethical research in the MENA region. The multiple sources of data arrived at thematic continuities which indicates that the results have greater confirmability and credibility as suggested by Johnson et al. (2020).

## Data Analysis

The continued communication and peer reviews between the lead research team members and the country teams for all the

study phases helped validate and reflect on the findings. Preliminary study findings were shared frequently throughout the study. The emerging themes were reflective of the research reality in these countries, and this enhances confirmability. A clear audit trail describing the decision-making process throughout the study enhances transparency. A variety of revealing exact quotes from the FGDs and interviews have been compiled by the country teams to be used in the write-up of findings.

## **Discussion and Conclusion**

The protocol paper presented here describes and reflects on the qualitative research methodology used in our study. Data generated from this multi-stakeholder and multi-method qualitative research provide a thorough understanding of the research ethics landscape in the region, the practices, resources and structures available to enhance and/or hinder responsible research conduct. The study aims to contribute to a long-term process of improving the culture of research conduct in the region by producing a baseline portrayal of common practices, challenges at several levels and a rich description of the research context. This may also be useful material to guide the development, and testing of culturally relevant guidelines and interventions.

The study began at the height of COVID-19 lockdowns which prevented in-person meetings for team members and participants. In virtual meetings, oftentimes cameras were turned off because of connectivity problems, which impacted rapport building. Moderation of virtual FGDs necessitates alertness following the chat box and the interactions on the screen, as well as the participants' non-verbals (Hennink, 2014). This proved to be daunting for some research associates who reported feeling overwhelmed. For example, to ensure everyone got a chance to speak, they suggested people raise hands but later realized this made the discussion formal and sequential. Nonetheless, as suggested earlier, virtual data collection enhanced the participation of a diverse pool of researchers from many universities, who would not have otherwise been able to commute to take part in the study.

Country teams reported that the agreed upon recruitment strategy was very difficult to follow because of its formality, and required a lot of effort in follow-up. Snowball sampling was adopted in some country sites as it was described to be a contextually appropriate means of recruiting participants in these collectivist societies, where individuals rely on informal social networks for obtaining information as opposed to reliance on written communication (Hofstede et al., 2005), and this is considered more reliable when communicated from within one's group rather than by outsiders (see Nakkash et al., 2017).

A final point worth noting is that the indices we used to assess research output have been critiqued as emanating from the West and adopt a one-size-fits-all approach that does not consider the publications in local languages, and generally serve a commercial ideological function that is not really indicative of research excellence (Hanafi, 2022; Hanafi & Arvanitis, 2016). The absence of countries experiencing conflict and/or showing low research productivity in our sample did not allow us to explore their landscape, which may be different than the countries that have an active research landscape, and whose researchers publish internationally.

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#### **Ethical Statement**

#### Ethical Approval

IRB approvals were obtained from the Institutional Review Board at the American University of Beirut for each phase (SBS-2021-0295) on January 25, 2022 for the FGDs, and (SBS-2022-0196) on September 27, 2022 for the IDIs.

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#### Supplemental Material

Supplemental material for this article is available online.

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