Lessons learned from qualitative fieldwork in a multilingual setting

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ABSTRACT

Qualitative research conducted in a multilingual setting is an arduous, yet essential, endeavour. As part of my PhD research program, I set out to conduct qualitative process evaluation of a stroke trial in 11 languages in the Indian subcontinent. In this article, I reflect upon the challenges, oversights, and successes that I experienced in the hope of offering insight of use to fellow researchers conducting healthcare fieldwork in multicultural contexts where many languages are spoken. My account starts with a description of the setting's context and the necessity of conducting research in multiple languages. I elaborate on the planning of the study which included selection of the sample and preparation of relevant documents, including informed consent in patients' languages. Subsequent steps entailed submission and approval of requisite documents, setup and training of a research team, and conducting interviews using interpreters. During this process, I developed a hybrid technique for conducting interviews that reduced fatigue for both patient interviewees and interpreters while still yielding in-depth insights. Additionally, I discuss the benefits of engaging professional translators for performing translations. Finally, I introduce a stepwise approach to facilitate the thematic analysis of qualitative data. I believe this account will encourage and empower researchers to pave their own way while anticipating and preparing for potential obstacles when conducting research in similar settings.

Introduction

Traditionally, the foundation of public health studies has been based largely on quantitative research. Nonetheless, qualitative research strategies are capable of providing documentation of and insight into the "lived experience" of patients' and various stakeholders on many aspects of public health (Stickley et al., 2022).

Over time, a consensus has emerged regarding the value of both qualitative *and* quantitative approaches in public health care (Anderson, 2010). This recognition has extended to policymakers who increasingly emphasize the importance of qualitative studies for insights into the implementation of clinical research and the diverse contexts in which it takes place (Anderson, 2010). Researchers such as Green and Thorogood (2018) advocate for the integration of qualitative methodologies, emphasizing their ability to enrich our understanding of the real-world implications of clinical interventions, thereby informing more nuanced and effective healthcare policies. Additionally, a notable trend in research methodology is the integration of mixed-methods research, combining quantitative and qualitative components to achieve a more comprehensive understanding (Stickley et al., 2022). Yet, medical academicians, especially those new to qualitative research, may find themselves uncertain about the various methods involved such as interviews, focus group discussions, observations, and the overall process of conducting qualitative studies (Ghirotto et al., 2020).

As a clinical researcher deeply rooted in the quantitative aspects of clinical research, my expertise has primarily revolved around the clinical sciences and the meticulous conduct of research trials. These trials have spanned diverse domains within the field of stroke, including epidemiology, interventions, pre-

vention, and rehabilitation. One notable endeavour in my career was a multicentric stroke rehabilitation trial known as the Family-Led Rehabilitation After Stroke in India (ATTEND) trial, which took place in India between 2014 and 2016, as documented by the ATTEND Collaborative Group (2017).

As a central coordinating committee member for the ATTEND trial, my primary focus was on the quantitative aspects of the research. However, this experience also afforded me an opportunity to venture into the realm of qualitative research. Specifically, I was involved in conducting interviews as part of the process evaluation for the trial, a task that introduced me to a fascinating challenge. These interviews took place in various Indian languages with which I was not personally acquainted, necessitating the invaluable assistance of interpreters (Liu et al., 2019). The experience of delving into qualitative research methods and conducting interviews across diverse linguistic contexts proved to be both captivating and enriching. Results from qualitative elements of the study added a fresh and illuminating perspective to complement the quantitative findings.

Further on, I participated as a central coordinating committee member, in the Secondary Prevention by Structured Semi-Interactive Stroke Prevention Package in India (SPRINT India) trial which was a secondary stroke prevention trial from 2017-2022 (Pandian et al., 2023). The trial was a randomized clinical trial focused on secondary stroke prevention conducted at 31 centers in the Indian subcontinent. The trial aimed at educating sub-acute stroke patients and their carers of the risk factors, medication compliance, and importance of physical activity. The intervention group received an educational workbook, text messages, and short videos delivered to participants' phones over a one-year period; in contrast, the control group received the standard secondary stroke prevention provided at each hospital. In 2019, while pursuing my PhD in clinical research, I had the opportunity to undertake the process evaluation of the SPRINT India trial as the topic of my research (Verma, Khatter, et al., 2023). The trial interventions were translated from English into 11 Indian languages (Hindi, Punjabi, Gujarati, Marathi, Kannada, Telugu, Tamil, Malayalam, Oriya, Bengali, and Assamese) to accommodate patients' first languages at the participating centers (Kate et al., 2020). The use of interpreters and translators was crucial in this process, as the research team, of which I was a member, conducted interviews in languages not known to all team members.

Cormier (2017) has aptly suggested that the researcher should identify and detail their approach for undertaking the translation and interpretation at the start of data collection, as it is a crucial step towards accurately portraying the participants, thus aiding validity of the research. Following Cormier's argument, careful planning and execution were needed for the qualitative evaluation of the SPRINT trial.

Multilingualism is an inherent aspect of healthcare settings in many regions due to diverse patient populations, and multilingual aptitude is invaluable for qualitative scholars aiming to engage with diverse patient populations in a respectful and culturally sensitive manner. As such, this paper discusses innovative methodological approaches and adaptations that I have employed including techniques for effective translation and interpretation, strategies for building rapport with participants from different linguistic backgrounds, and ways to ensure the validity and reliability of findings. Practical guidance derived from lessons learned offers valuable recommendations for mitigating potential pitfalls in future qualitative, multilingual fieldwork.

Literature review

Qualitative research in health care focuses on the meaning-making process, involving the systematic collection, organization, and comprehension of data often derived from dialogue or discussion, e.g., as experienced by patients in their daily contexts (Mohamad Nasri et al., 2020; Isaacs, 2014). As such, qualitative methods are particularly well suited for addressing research problems involving the evaluation of complex, multi-component interventions. These methods go beyond the question of "what works" to explore "what works for whom, when, how, and why," focusing on intervention improvement, rather than mere endorsement (Busetto et al., 2020, p. 2).

Conducting qualitative research with participants and researchers in multilingual settings has evolved over time and is now common worldwide (Verma, Ratra, et al., 2023). Temple (2002, p. 844) coined the phrase "cross-language research" to describe qualitative investigations that involve a translator or interpreter at any point in the research process. Of course, requisite language aids such as interpretation and translation can have a significant impact on the credibility of the collected data (Cormier, 2017).

Multilingual methodology becomes complicated due to the necessity of understanding cultural expressions, colloquial terminology, word coherence, and connotations in a cross-language research (Manohar et al., 2019). Verbatim interpretation of the data in the presentation language can sometimes overlook linguistic and cultural differences (Oxley et al., 2017). Despite inherent challenges, Ratner (2012) succinctly explains why qualitative data is considered trustworthy, emphasizing that it documents the world through the eyes of the individuals involved, rather than filtering it through the researcher's perspective, and it follows that linguistic aptitude is essential in the process.

Reflexivity, positionality, empathy, and conceptual equivalence are pillars of a rigorous and methodologically robust qualitative investigation, along with considerations of the ethical implications of such research and the increasing emphasis on data validity (Verma, Dhiman, et al., 2023). In this context, Bloom-Pojar (2018) raises critical questions pertinent to a multilingual study, such as who benefits from decisions about the value of languages, how language can be employed as a means of oppression, and conversely, how language choice in medical contexts can be leveraged to confront linguistic inequality and advance more equitable social structures. And Kulkarni-Joshi (2019) notes that due to the paucity of discussion in the literature on cross-cultural qualitative research, including methods for translation and the use of interpreters for data collection, researchers face methodological and ethical challenges, as various linguistic systems produce a multitude of phenomenological perspectives.

Examination of scholarship on this topic underscores the importance of a seamless collaboration between interpreters, researchers, and translators in a multilingual study to ensure its success. As I will illustrate below, a culturally and linguistically diverse country such as India necessitates attentiveness to all facets intertwined with language, traditions, and culture (Fazal et al., 2019).

Research context and its linguistic populations

The SPRINT India trial was a multi-centre initiative, coordinated from Christian Medical College, Ludhiana (CMCL), in Punjab located in the northwest of India. Dr. Jeyaraj Durai Pan-

dian, the National Principal Investigator of the trial, based at CMCL, led the trial with the central coordinating committee, which included Deepti Arora, senior project manager, Aneesh Dhasan, research associate, and myself. The 30 other participating centres were distributed across different regions of the country. Each center was equipped with a center investigator and a research coordinator who actively managed the trial's activities on site (Pandian et al., 2021). Although the central coordinating team was primarily based at CMCL, frequent communication channels, including regular meetings and virtual interactions, were established to ensure effective collaboration and support between our team and the on-site coordinators located at various centers. This approach facilitated seamless coordination and oversight throughout the trial duration.

India, a union of 35 geographical units (28 states and eight union territories), is one of the world's oldest civilizations and is home to numerous languages (States UTs - Know India: National Portal of India, 2023; Fazal et al., 2019). According to the 2011 Census, India boasts 22 scheduled languages, 121 additional languages, and 270 "mother tongues." There is no designated national language, and no single language is spoken throughout the entire country. The national literacy level, across languages, is 74% (Profile - Literacy - Know India: National Portal of India, 2023). The subcontinent is the most populous in the world, with 1.428 billion people (Roy & Mascarenhas, 2023). India has one of the world's largest and most diverse economies, but due to its massive population, it is among the poorest nations, with approximately half of the population deriving their livelihood from agriculture (Choithani et al., 2021). The healthcare delivery system in India comprises both government and private sectors, with government facilities primarily limited to a few secondary and tertiary care hospitals in major cities and primary healthcare clinics in rural areas (Jacob, 2021). The majority of secondary, tertiary, and higher care facilities are operated by the private sectors, with a concentration in major cities (State of Healthcare Sector in India, 2022).

Like other developing countries, India is experiencing transformations in its population, epidemiology, nutrition, patterns of diseases, and lifestyle and an increase in chronic diseases (Jana and Chattopadhyay, 2022). Cardiovascular diseases account for 28% of all deaths, with major risk factors including dietary risks, high blood pressure, and air pollution (India State-Level Disease Burden Initiative CVD Collaborators, 2018).

Rationale

The use of qualitative approaches in areas such as health services research and health technology assessment has expanded in combination with an increase in the reporting of qualitative research studies in medical and related publications (Anderson, 2010). In the following sections, I will share my experience of conducting multilingual research as part of SPRINT India, highlighting the challenges, successes, and missteps encountered along the way. Lessons learned, problems faced, and solutions developed during my fieldwork are practical and transferable. As such, they can be readily implemented by researchers in other multilinguistic healthcare contexts. To enhance readers' understanding, I have created Figure 1, which presents the flowchart of the steps involved, as presented in the following pages.

Planning the research

Selection of sample and methods of interviews

Qualitative researchers often use non-probability sampling strategies, with the four most common approaches being con-
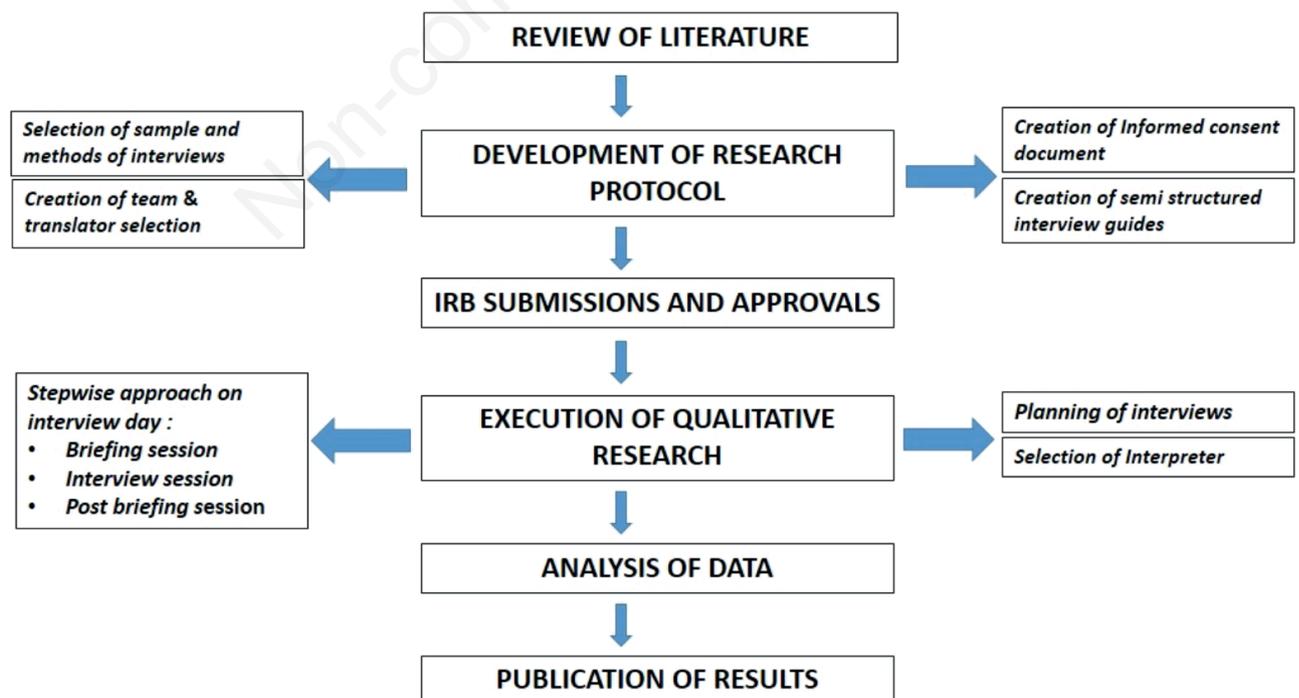
Figure 1. Flow chart of steps in a multilingual research in healthcare setting.

venience sampling, purposive sampling, snowball sampling, and intensity sampling (Renjith et al., 2021). The general purpose of non-probability sampling approaches is to gain a fundamental understanding of a small or under-studied population, rather than to test a theory about a large population. The type and needs of the investigation influence the sampling technique chosen. For my approach, I chose a maximum variance, purposive sampling strategy for the selection of the centers and the various stakeholders. I chose purposive sampling to enhance precision by selecting individuals based on my study criteria, relying on my judgment to ensure data richness and study integrity.

Qualitative data were gathered through interviews, and focus group discussions were conducted at 11 diverse locations. The primary motivation for selecting these sites was the translation of the intervention into 11 Indian languages from English, ensuring that each location represented a language spoken by the key stakeholders in the trial. Patients spoke a total of 12 different languages, covering those spoken by approximately 80% of the Indian population (Know India: National Portal of India, 2023).

Furthermore, I took into account factors such as private and government-owned hospitals, locations in North and South India, and a combination of older centers from the trial's inception in 2018 and newer ones added in 2020 (Verma, Injety, et al., 2023). A sample of three to four patients and caregiver dyads from each center was stratified by age, gender, treatment group (intervention and control), urban and rural region, and patients' health condition. In-depth interviews with two or three health professionals per sample center were conducted. In total, the team conducted 115 interviews over eight months, from August 2021 to March 2022. Each interview was conducted individually and had an average duration of 25 minutes. In three interviews, patients were suffering from aphasia and needed assistance from caregivers to communicate.

Creation of an informed consent document and a semi-structured interview guide

Securing informed consent is a fundamental ethical tenet in contemporary research. Recent guidelines emphasize the importance of a written consent document, tailored to the participant's native language to guarantee a thorough comprehension of the research. This approach, aligned with current ethical standards, prioritizes participant autonomy and understanding (World Medical Association, 2018). Initially, there was uncertainty about whether interviews would be conducted online via Zoom, over the telephone, or through physical visits to the sites because of the COVID-19 pandemic. Due to this uncertainty, I prepared

telephone-informed consent forms in addition to the traditional consent documents.

The core management team—consisting of Deepti Arora, Aneesh Dhasan, and myself—conducted the interviews. Interpretation was carried out by hospital staff unrelated to the SPRINT India Trial. Transcription and translation of the interviews were entrusted to a professional agency that we engaged. (Further details on translation and transcription are described below.)

Semi-structured interview guides, as outlined in Patton's *Qualitative Research & Evaluation Methods* (2015) , function as adaptable frameworks that encourage open-ended discussions while providing a loosely structured approach, facilitating thorough information collection. I created distinct semi-structured interview guides in English for patients and caregivers of both intervention and control group and health professionals, tailoring the content to address the unique needs and perspectives of each group. I did not translate them into local languages because they were to be used by the researchers and the interpreters who were well-versed in English; instead, I relied upon interpreters to employ their respective linguistic skills as needed within each center to account for linguistic variability across all centers. Questions covered various topics, including patients' stroke journeys, experiences with the three interventions (educational workbooks, text messages, and videos) and their adherence to lifestyle changes suggested by the interventions (Verma et al., 2022).

To ensure guide sensitivity, I conducted rigorous pilot testing of the interview guides at the trial's main coordinating center, CMCL, using languages I am proficient in, namely English, Hindi, and Punjabi. During this phase, I interviewed six stroke patients, caregivers, and healthcare providers refining drafts along the way. Multiple iterations resulted in the final draft, meeting all research objectives and intended outcomes after a comprehensive team review (Table 1).

Ethical considerations

Following the piloting stage, interviews were conducted by the interviewing team, consisting of the core management team personnel who used interpreters selected from the respective centers. These interpreters posed questions to participants in their native language based on a predetermined guide and then translated the responses back to the team personnel. The interviews were recorded at each center and sent to a translating agency for transcription and translation into English. (Criteria for selecting interpreters and translators are described further below.)

As noted above, the informed consent documents were translated into each of the 11 languages, for implementation by

Table 1. Example of items in the semi-structured interview guide for patients.

- Can you please tell how you suffered stroke and its possible causes?
- What were some of the good/bad things about stroke awareness and management to prevent recurrent stroke in hospital?
- How can your doctor or the stroke unit improve stroke awareness program?
- What type of stroke information did you get from family, community or social groups about looking after your health?
- Did you receive sufficient training/support/information about the intervention initially?
- Did you have any difficulty in accessing the intervention from your smart phone?
- What did you think of the intervention delivery through your mobile phone?
- Who would you speak to if you were having trouble with following the intervention? When have you had to do this?
- Do you think your stroke awareness would have been same if not part of SPRINT Trial?
- Were there things which we could do better to improve the study or the running of the trial?

the interviewers at the centers. Afterward, research coordinators at the sample centers were asked to review the textual translation of the document. Once the coordinators provided their approval, the documents were submitted, and approvals were obtained from the respective centers' institutional ethics committees as per the principles of the Declaration of Helsinki (World Medical Association, 2013). I conducted the analysis of the interviews after the transcripts were translated. The tranlsation process is described further below.

Execution of SPRINT India trial process data collection and evaluation

Data collection and analysis teams

A qualitative research study aiming to recruit participants from different linguistic groups requires a team of individuals who offer the primary researcher competent advice and useful assistance, not the least of which is language support. A diverse team with various perspectives and experiences can use their ingenuity to overcome research obstacles and critically challenge all assumptions. My research team consisted of seasoned health research professionals experienced in working with diverse populations, providing valuable guidance on the conduct of the research process.

To assemble the research team, it was crucial to enlist members who were multilingual and well-versed in the cultural dynamics of the respective centers. Our interviewing team comprised core management team members, including myself, Deepti Arora, and Aneesh Dhasan.

I, hailing from the northern part of India, hold a master's degree in clinical research. Pursuing a PhD in the subject, I have collaborated with Jeyaraj Durai Pandian at CMCL, for over 12 years, contributing to various stroke-related clinical trials. As a native Hindi speaker, I am also fluent in Punjabi, English, and Marathi.

Deepti Arora, also from the northern region, possesses a master's degree in clinical research and is pursuing a PhD in the field. With over 12 years of experience in stroke-related clinical trials at CMCL (with Jeyaraj Durai Pandian), she is fluent in Punjabi, Hindi, and English.

Aneesh Dhasan, hailing from the southern part of India, holds a PhD in biotechnology, with more than six years of research experience. A native Malayalam speaker, he is also fluent in Tamil and English.

It is also crucial that the entire team be aligned with the goals and objectives of the study and communicate well with each other. In this respect, it is the duty of the primary researcher to lead the team and to keep the team focused. In preparation of the work, I researched literature and reflected on my limited prior experience as a qualitative researcher (Verma, Dhiman, et al., 2023). I prepared presentations to train the rest of the team on the evaluation protocol, objectives, and interview guidelines in detail. I provided hands-on guidance and support, encouraging team members to apply the guidelines in a trial setting, while actively overseeing the process. I organized practice interviews, focusing on skillfully using interpreters for effective communication. This approach allowed team members to gain experience, refine techniques, and improve interview skills, with an emphasis on interpreter use. We all have smartphones and considered it convenient to use these devices for recording interviews. We conducted checks to determine the optimal

placement of the smartphones to ensure high-quality recordings.

For the data analysis, I collaborated with a seasoned qualitative researcher, Ranjit J. Injety, from CMCL. With a master's degree in public health, he has actively participated in the qualitative process evaluation of another stroke care clinical trial. A native Telugu speaker, he is fluent in English and Hindi. Together, we coded the data and conducted thematic analysis. Details of the analysis are presented in a subsequent section below.

Planning online and in-person interviews

Due to the pandemic, there was no clarity regarding the feasibility of traveling to the various centers for conducting in-person interviews. Dr. Pandian believed that interviews of this nature require empathy and, thus, the personal presence of the interviewer to elicit the highest quality, free-flowing data. His encouragement and the subsequent relaxation of travel guidelines after the second wave of COVID-19 (April-August 2021) made travel for the interviews possible. A few centers which had received ethics approvals were contacted, and an onsite itinerary was prepared from September 2021 to December 2021. All of the team members were eager to travel for the interviews once the lockdowns were lifted.

Each center had one primary investigator and a research coordinator who conducted and oversaw trials. The research coordinators handled tasks such as obtaining center ethics approvals, recruiting patients, inputting patient details into the trial pro forma and conducting follow-ups. They operated under the guidance of the primary investigator, who was generally the physician overseeing the patient treatment and was chiefly responsible for the center and the coordinator.

Research coordinators at the 11 centers were informed at least 15 days in advance about scheduling participants' appointments on the designated date and time. A list of six to eight patients was provided to each center so that at least a minimum of three patient-coordinator dyads were present at the specified date and time. No direct monetary incentive was provided to the participants; however, participants did get extra help arranging a meeting with the center investigator (their doctor) by the coordinator. Patients greatly valued this service because there are typically long queues outside doctors' offices.

Attendance among participants was unpredictable, so we had to be flexible in our approach. At one of the centers, for example, all patient-caregiver dyads that visited were from the control group, and none from the intervention group turned up; to gather feedback from the intervention dyad in this region and their respective language, I later conducted a Zoom meeting with a dyad, and recorded the interview. At another one of the centers, all eight patient-caregiver dyads who were invited turned up; it would not have been appropriate to decline anyone for the interview, as they had traveled from a distance and were eager to participate.

Choice of an interpreter: Convenience *vs.* doing it right

Scholarship stresses the importance of having a skilled interpreter on the team who is a native to the region and has good communication skills (see, e.g., MacKenzie, 2019). As we had the advantage of having research coordinators at the centers, we asked for their assistance in arranging for an interpreter who was familiar with the local language and the culture and who could

act as the "cultural insider" (Cormier, 2017). At the first two centers where interviews were conducted, the coordinators volunteered to provide the services themselves, and we accepted as a matter of convenience. However, after the session ended, I informed the research team that the patients and the caregivers were unable to express their opinions fully and were being cautious about contradicting anything related to the study. This I could decipher from their evasion of the questions about barriers regarding the trial and their exaggerated praise for the coordinator without probing.

These patterns were likely due to the coordinator at each center having over time developed a rapport with the trial patients and their caregivers. The coordinator was involved at each step of their recruitment into the trial along with the delivery of intervention and monthly follow-ups. And as noted above, the patients and carers had access to the physician investigator through the coordinator which was greatly valued. It is likely that patients found it rude to give any negative feedback and possibly felt obliged to praise the study and report only positive experiences. Since the coordinator was the primary intervention provider for these participants, it potentially introduced bias due to their positionality.

To address this challenge, we requested the remaining centers to arrange for a neutral volunteer to serve as an interpreter. I advised that it would be beneficial if the individual worked at the hospital, but was independent of the trial and unfamiliar to the patient-caregiver dyad and us. Notably, this person was not a professional interpreter, posing a risk due to potential lack of specialized skills. However, to mitigate this concern, we provided comprehensive online training lasting one to two days, tailored to their comprehension levels and addressing any additional questions. The training emphasized their familiarity with our study's context and cultural nuances, considering their regional ties and affiliation with the medical field. Possessing traits resembling both researchers and respondents, this balanced combination fostered an effective and relatable dynamic within the interview team.

The coordinators demonstrated resourcefulness by recommending interpreters who worked in varied fields at their hospitals, as per our request. These interpreters had various roles, including data entry personnel, researchers in other studies, and social workers within their respective hospital settings, offering valuable insights and assistance in our research. Furthermore, these interpreters, originating from the same region, effectively

bridged the gap between the patients and the medical industry represented by our team. Their local expertise and diverse roles enriched the research process, fostering a deeper connection and understanding among all parties involved.

I scheduled a Zoom meeting online seven to ten days before conducting the interviews to assess interpreters' social status, subjectivity regarding the study topic, interest, and language skills. We reached a consensus on their participation and forged a productive working partnership marked by transparent communication, mutual understanding, and collaboration, enhancing the overall efficiency and effectiveness of the research. All team members attended these meetings to guarantee unity and coherence in our approach. Copies of informed consent documents and interview guides were shared, along with an informal list of instructions for the reference of the interpreters and the interviewing team. This document suggested a few practical pointers (Table 2) that the team members and I developed during our pilot interviews and further rounds of interviews. This list continued to expand with each set of interviews conducted at different centers, as we gathered additional practical insights and pointers from pilot interviews and subsequent data collection rounds.

We worked effectively with the interpreters at most of the centers after adjusting our strategy in response to their input, establishing a balance of multiple viewpoints with a combination of insiders (interpreters) and outsiders (management team members), as suggested by Cormier (2017). In order to ensure uniformity and accuracy in interpreting, the same interpreter was assigned to each language group at every center. This approach aimed to prevent variations in translation and to facilitate a consistent understanding of participant responses across interviews in the same language.

Step-by-step approach in the interview process

Briefing session

A briefing session with the interpreter and the center coordinator, lasting at least a half hour at the beginning of the interview day helped set the boundaries and tone for the interviews. We also considered the need for privacy and held each participant's interview separately. This resulted in uninhibited interviews where we hoped that each participant expressed their true sentiments; however, as noted above, there were a few patients

Table 2. Things to remember during interview shared with the interviewers and the interpreters.

THINGS TO REMEMBER
Please read the interview guides carefully, remember that it is only a guide, you can add or delete questions as per the answers given by the participant.
Ensure that you are sitting in a quiet room where you can conduct the interview without any noise and disturbance.
Before beginning with the interview, make the interviewee comfortable and ask them to speak clearly and loudly; even in between the interview, if their voice becomes low, be gentle and ask them to speak louder after they have completed their answer.
Check the voice quality of the recording device and choose the correct place to keep it preferably close to the interviewee.
Do not forget to take the consent of the participants and note their SPRINT ID in your field notes.
Maintain eye contact with your interviewee; rather than saying 'yes or yeah', nod your head in agreement for encouraging them to speak during interview.
If the participant is going off track, gently bring them back to the asked question.
The average time taken for interview is approx. 30-35 minutes.
Our aim is to dig inside the patient and bring forth any flaws or lacunae in the study. Garnering praise of the study is not the objective of the interview.
Regarding the health professional interview, our aim is to dig into their issues (screening, randomization, implementation, follow-ups and their opinion regarding the study).

who were accompanied by their caregivers during the interview due to their medical conditions.

Upon patients' arrival in the interview room, the coordinators, who knew them well, introduced them and left shortly afterward. I made an effort to learn a few words in the participants' respective languages to express gratitude and welcome them, and I ensured that my team also did the same. These seemingly minor, yet significant, gestures established a conducive atmosphere for conducting profound and enriching interviews. This collaborative approach, involving the entire team, was consistently followed before each interview, with team members conducting their respective interviews separately.

Interview session

Amongst the team, I began the process of interviewing the 11 centres from CMCL where I conducted interviews in the Punjabi language. Since I am fluent in Punjabi, I did not need to use an interpreter. Following that, I conducted interviews in the western region of Gujarat where the language Gujarati is spoken; here, the coordinator worked as an interpreter. During these initial interviews, I employed a passive technique of interviewing, characterized by the coordinator posing questions and translating responses between the participant and me in English.

Aneesh Dhasan had also conducted interviews at one of the South Indian centres assigned to him. He also used a coordinator and employed the passive technique for interviews. Following our discussions and note exchange, we recognized drawbacks associated with this approach including respondent fatigue and a disrupted natural flow of conversation between participants and the interpreter, resulting in a disjointed interview experience. This realization prompted me to re-strategize the process and engage in self-reflection to improve the overall interview experience. In subsequent interviews at another center, I initially continued with the passive technique for the first participant. However, for subsequent participants, I reformed the passive technique, introducing a hybrid interviewing method that combined elements of both passive and active techniques.

By "hybrid interviewing method," I refer to an approach that incorporates both passive and active elements. In this context, it involved a dynamic interaction where the interpreter actively posed questions to participants, but refrained from immediate interpretation, allowing for a more natural and engaging conversation. The selective interpretation of significant findings helped streamline the interview process without compromising the richness of the data collected.

As such, I specifically instructed the interpreter to pose questions to the participants without immediately interpreting their responses. Instead, I guided the interpreter to selectively interpret back only significant findings and to establish trust with the participants by demonstrating respect for every word spoken. This change in strategy resulted in interviews that were concise and focused, maintaining the quality of the interactions.

While there was a potential risk in this change, it is outweighed by the benefits compared to the passive technique. The risk is that by not immediately interpreting participants' responses, there may be a slight delay in understanding and addressing their concerns. However, the change enhances the quality of the interviews by allowing participants to express themselves more naturally and build trust with the interpreter, ultimately resulting in more authentic and insightful responses. This delay is a minor trade-off necessary for the overall improvement in the interview experience and data quality.

To ensure consistency in interviews across various centers, the entire team then implemented a two-step approach. First, each center conducted the initial interview of a participant using the active interviewing method, where interviewers directly engaged with participants to understand colloquial terms for emotions. This allowed us to gain insight into participants' language use. Subsequently, we introduced the active-passive interpretation technique for the rest of the participants. This combination enhanced the interview process by promoting natural dialogue and ensuring that participants' expressions were accurately understood and documented.

Later, during team meetings, all team members concurred that this technique caused less fatigue and burden to the patient and the interpreter and that the participants were sharing their feelings earnestly. Team members noted that most of the participants understood the relevance of the primary interviewer and made eye contact and directed their body towards the primary interviewer while responding to the questions. This hybrid strategy, which was invented out of necessity, worked well for us in all the languages. I would encourage other researchers to follow this reflexive approach in multilingual settings.

Post-briefing session

The field notes were collaboratively written by both the interpreter and our team member (primary interviewer) after each interview session. This joint effort was crucial in capturing the nuances of the conversation, assessing the participant's comfort, and addressing any observed challenges. The debriefing session facilitated an immediate review, ensuring accuracy in capturing linguistic and cultural references. These field notes played a vital role as references during the subsequent translation process and the data analysis phase. This collaborative approach, despite involving only two individuals, enriched the notes with multiple perspectives, ensuring comprehensive documentation.

The process of translation

Validity of the translated documents is crucial because improperly translated data may not preserve the subtlety of the respondents' feedback and may have an impact on the thematic analysis. As such, the translator must be fluent in both the participant's language and the researcher's language (Verma, Dhiman, et al. 2023). The translator's job starts even before the interviews are translated, i.e., with translation of the informed consent documents into the participants' native language and then moves onto translating the interviews.

It is not unusual that the researchers themselves do the translations, but in our case, we did not know all of the respective languages. To keep consistency, we hired a reputed professional medical translation services company. Translation may be an expensive endeavour when a professional medical translation agency is hired. I had incorporated the fees of the translation service in the budget of our protocol and had accordingly received funding from the sponsoring agency to hire a professional medical translation agency. We have had a positive working relationship with the agency for several years, benefiting from their reliable services and quality translations for various clinical research trials. This company has a network of professional, certified, and experienced translators from across the country who are familiar with the regional languages and colloquial terms.

The translation agency manager was contacted by telephone to explain the confidentiality, sensitivity and context of these in-

terviews. Further, an email was sent to explain some of the study's objectives and theoretical foundations and to answer any questions. It was easier to speak with a single point of contact—i.e., the company's manager regarding the per-word costs and expenses which were different for each language. This significantly reduced our workload in terms of finding and negotiating individual agreements.

We drafted a contract with the business, noting that qualified, seasoned translators for each language would be used and would also issue translation certificates at the agreed-upon fees. Translation certificates are official documents provided by qualified translators or agencies to confirm the accuracy and completeness of a translation, essential for legal, official, or academic purposes.

Transcripts of the interviews, along with any comments or notes provided by the translators, were given to the research coordinators at the respective centers. Coordinators were asked to compare the transcripts with the recorded interviews to ensure accuracy and completeness. The utilization of coordinators' language skills facilitated meticulous comparison of transcripts with recorded interviews, ensuring enhanced accuracy and completeness in the verification process. The final check was conducted by a core team member who referred to the notes taken during the interview process. Errors were primarily grammatical and did not substantially affect the fidelity and accuracy of the transcripts. This double-check process ensured the rigor and precision of the transcripts. As per the request made to the agency to contact me in case of enquires and misheard words via email or phone, I received a few queries.

The choice between professional and volunteer interpreters depends on factors such as the study's scale and budget. Professional translation services are crucial for data analysis to ensure accurate representation of participants' responses and cultural nuances, avoiding data misinterpretation. In earlier phases such as data collection, however, volunteer interpreters were considered to manage costs and logistics, provided they were proficient in the required languages. Professionals guarantee precision, while volunteers offer cost savings. Researchers should weigh these factors based on research goals and resources, as we did by choosing professionals for data translations and volunteers in earlier stages. Incorporating the research's financial aspect into the proposal from the outset is, thus, an essential step in planning the research protocol.

Data analysis

Ideally, qualitative research should be triangulated to increase the strength of the study (Kreps, 2008; Ngenye & Kreps, 2020; Patton, 1999). I was able to accomplish this in the previous steps with the trial core team of researchers. Similarly, to recognize and interpret salient themes among multiple tiers of coding, I sought the assistance of another qualitative researcher who was independent of my study to augment my analytical rigor, as previously mentioned.

Ranjit J. Injety has previously performed thematic analysis for another qualitative investigation and was enthusiastic to work on this endeavour with me. The data was centralized and organized using NVivo, a qualitative data analysis software tool known for handling unstructured data effectively. In our qualitative data analysis process, we initially worked individually focussing on specific stakeholder groups—patients, caregivers, and health professionals (including investigators and coordinators). Each of us then independently scrutinized the interview

text, employing a coding process, labelling data segments related to specific themes or patterns. This facilitated the identification and categorization of key concepts within the interviews. Our goal was to comprehensively define and categorize all aspects of the interviews for each stakeholder group.

We further conducted thematic analysis using an inductive approach where emergent codes were identified independently by comparing our codes, and then a common consensus was reached between us to form the themes and sub-themes. Subsequently, this list of themes was further organized to decrease the number of themes into those that were most significant. This systematic process was extremely effective and time-saving, ensuring an efficient and rigorous analysis to reveal recurring themes and valuable insights within the data.

Conclusions

The literature on qualitative research in multilingual contexts offers extensive descriptions of complex processes, but there is a lack of step-by-step guidance on how to approach the process, especially in healthcare settings. In the sections above, I have attempted to open a window into the process that I have successfully employed to help fill this void and counter the notion expressed by Cormier (2017) that the activities of interpretation and translation frequently go unnoticed in research.

To conduct qualitative research, the healthcare researcher must sometimes change their focus from percentages and numbers to the participants' words which may not necessarily be spoken in researchers' language (Kreps, 2008). As this article has illustrated, a qualitative, healthcare study proposal can serve as a blueprint, while allowing room for subsequent researchers to exercise reflexivity in specific situations.

Qualitative research in multilingual settings should follow basic steps, from the selection of the sample to the ethical requirements of the research, data collection, and analysis and yet remain flexible as adjustments are made in response to specific conditions within each research context. For example, as discussed above, the development of semi-structured guidelines is an important step requiring pilot testing and onsite refinement to ensure sensitivity.

The research team which helps the primary researcher should include a mix of viewpoints and experiences to provide competent and beneficial assistance. During the interview process, it is vital to have an interpreter who is an insider for the participants, yet we also recommend hiring professional translators to increase the validity of the transcriptions. Rigorous thematic analysis requires constant reflexivity and, again, a mix of multiple perspectives. I hope that readers will find this guideline useful as they engage with unexpected situations in their respective multilingual, healthcare research contexts.

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