Brown *et al.*
Implementation Science Communications (2025) 6:23
https://doi.org/10.1186/s43058-025-00709-w

Implementation Science Communications

METHODOLOGY

Open Access

Evaluation of a notes-based rapid qualitative analysis method to facilitate implementation

Rachel Brown[1*], Sofia Cigarroa Kennedy[2], Elena Carranco Chávez[3], Jeriel Dumeng-Rodriguez[1] and Danielle Cullen[1,2]

Abstract

Background Qualitative methodologies offer a nuanced approach to understanding stakeholder perspectives, preferences, and context in implementation research. However, traditional qualitative data analysis can be time consuming and create barriers to responsive implementation of interventions. Rapid qualitative methods that yield timely, actionable results have emerged to expedite the evidence-to-practice gap, but often require all analysts to have implementation science expertise and resources for interview transcription. This study describes a novel rapid qualitative method to identify participant-driven social care recommendations in real time.

Methods Caregivers of pediatric patients were enrolled onsite at two primary care clinics and one emergency department affiliated with a large urban pediatric healthcare system. A semi-structured interview guide was developed using the Health Equity Implementation Framework and Integrated Behavioral Model in partnership with multidisciplinary implementation stakeholders. Telephone interviews explored 60 caregivers' experiences with and perceptions of receiving social resources from healthcare. For traditional analysis, NVivo12 was used to code the first 10 verbatim transcripts to generate themes in an integrated inductive/deductive approach. In the rapid approach, a summary notes template designed to capture implementation-related data was completed immediately following the same 10 interviews. A secondary analyst used the templates to create participant-level summaries and identify implementation-related themes. Themes found in each method were quantified and mapped onto each other using an analytic matrix to compare the number and consistency of themes.

Results Themes generated in both methods mapped consistently onto each other; 92.8% of themes found in traditional analysis were accounted for within our rapid method. The quantity of themes was similar between the two methods: the traditional approach generated 69 themes and 22 subthemes, while our rapid approach generated 72 themes and 21 subthemes.

Conclusions Our interview notes-based rapid qualitative method was successful in producing themes consistent with the traditional approach in both content and quantity. This approach is also pragmatic, as it does not require analysts to have deep implementation science expertise and saves transcription costs. By balancing rigor with time to actionable results, this rapid method provides a tool for implementation researchers to generate qualitative findings on an accelerated timeline to inform policy and practice.

Clinical trial registration This study was registered at ClinicalTrials.gov, #NCT05251311, https://www.clinicaltrials.gov/study/NCT05251311, on September 30, 2021.

*Correspondence:
Rachel Brown
BrownR19@chop.edu
Full list of author information is available at the end of the article

Keywords Rapid qualitative analysis, Social care, Health equity

Contributions to the literature

- Our comparison of a novel rapid qualitative analysis method to a traditional qualitative analytic approach expands the limited evidence base on the rigor of rapid methods to accelerate use of qualitative research evidence and inform implementation efforts in real time
- The rapid qualitative technique described here enhances the pragmatism of existing methods as it does not necessitate interview transcription, saving time and financial resources
- This approach is the first to collect data using an interview notes template that does not require each researcher to have expertise in implementation frameworks and theories

Background

Qualitative methodologies offer a nuanced approach to understanding stakeholder perspectives, preferences, and context in implementation science research [1, 2]. These methods are particularly valuable in healthcare-based studies, as they can help clarify the complex ways that patients, caregivers, and clinical stakeholders view and experience health system interventions [1, 3]. Qualitative research leads to the generation of rich and robust data; however, traditional qualitative methods, which typically entail transcription, cleaning, and codebook-based analysis of data, require significant time to complete and may inadvertently recreate the evidence-to-practice gap [4, 5]. This lengthy data collection and analysis period is often at odds with timeline pressures for implementation, resulting in findings that are "less relevant and potentially even obsolete" by the time they are published and limiting utility for implementation purposes [2, 6, 7].

Rapid methods have gained popularity in implementation research due to their ability to yield timely, actionable, and patient-centered results [4]. Studies have identified several advantages of rapid methods in general that hold particular promise for the field of implementation science, including time, cost and resource savings as well as improved efficiency [4, 8]. Despite the potential benefits of rapid methods, tension exists between the accelerated generation of results and scientific rigor [6, 9]. For example, some have raised concerns about maintaining trustworthiness of results generated by rapid methods [9]. These critiques highlight a need for comparative study to assess the rigor of rapid qualitative methods relative to traditional methods.

Various rapid techniques aimed at reducing the time or resources required to perform qualitative methods have been described, including scribing [10], direct analysis of audio recordings [11, 12], mind maps [13], Consolidated Framework for Implementation Research structured templates [6], and interview notes with audio verification [7]. While several studies used transcript-based interview notes to condense qualitative data in their rapid technique [7, 14, 15], no previous study to our knowledge examines the rigor of a rapid analysis method that does not require interview transcription. In addition, these techniques have not been applied to research in social care, the field concerned with the implementation of social care interventions in the medical setting.

Context and aim of the study

Social care— clinically based programs that assess and respond to social risks such as food or housing insecurity, unsafe environments, and financial strain— is rapidly expanding across hospital systems in the United States [16, 17]. However, many questions remain regarding the most family-centered and equitable practices to support engagement with social care, and there is limited evidence to guide implementation [18, 19]. Concurrently, mandates and incentives from the Centers for Medicare and Medicaid and Joint Commission as well as modifications to the *US News and World Report* hospital rankings have intensified pressure on healthcare systems to implement protocols to screen for and address patients' social risks [20]. Socially Equitable Care by Understanding Resource Engagement (SECURE) is a mixed-method hybrid type 1 effectiveness and implementation study grounded in the Health Equity Implementation Framework (HEIF) with the goal of understanding how best to facilitate family-level engagement with social resources from the pediatric clinical setting [21]. The qualitative component of this study includes interviews with caregivers about key implementation factors, including perceptions and preferences regarding social risk screening and resource information provision in the healthcare setting, as well as documentation, and follow-up. Qualitative data collection and analysis for this study were conducted over several years, between September 2022 and December 2024. However, given the accelerated pace of advancements in social care, patient-centered evidence was needed to inform implementation sooner than was feasible using traditional qualitative methods alone.

This study describes the development of a novel rapid qualitative method and its application to social care. This

rapid qualitative data analysis method was designed for use in conjunction with traditional methods to identify caregiver-driven implementation recommendations and guide local social care efforts in real-time. To evaluate the rigor of this approach and assess its potential to enhance social care, we compared the consistency and quantity of themes generated by rapid analysis of an initial subset of interviews to those generated concurrently by traditional in-depth analysis.

Methods

Participant recruitment

SECURE enrolled 3949 adult caregivers of pediatric patients ages 0–25 years old at two primary care clinics and one emergency department affiliated with a large urban pediatric healthcare system between April 2022 and August 2023. Study sites were intentionally selected for their demographic diversity. Caregivers who spoke one of six study languages (English, Spanish, Arabic, Mandarin, Vietnamese, and Portuguese) were eligible for enrollment; however, the qualitative component of the study was conducted in English and Spanish only. Caregivers were enrolled on-site during waiting periods in individual patient rooms. All participants provided verbal informed consent to a Research Assistant certified in research ethics prior to enrollment in the study. After demographic data was obtained, caregivers were randomized to complete one of three assessments of social risk or need. All study procedures were conducted on the caregiver's personal smart phone. We compared caregivers' acceptance of and engagement with social resources when information through a searchable electronic resource map was presented (1) alone, (2) following a resource menu in which participants self-select social domains for assistance, or (3) following social risk screening. Participants were contacted by a resource navigator five days after initial enrollment for supplemental tele-resource navigation, unless they opted out. Additionally, all participants could opt-in to same-day resource navigation to address emergent social needs, if desired.

Interview guide development and data collection

The goal of the qualitative component of the SECURE study was to broadly explore caregivers' feelings about social care. In service of this aim and to address policy and health system needs in the short term, a portion of the interview guide was focused more narrowly on understanding caregiver factors related to social care implementation. The semi-structured interview guide was developed based on an adapted version of the HEIF, and the Integrated Behavioral Model (IBM) [21, 22]. The IBM has six constructs that aim to examine attitudes, perceived norms, and personal agency around a behavior; the behavior examined in our study was engagement with social resources provided from healthcare [22]. The HEIF considers health equity determinants in intervention development and implementation and provides an organizing structure for how these determinants may affect intervention uptake (Fig. 1). The IBM and HEIF were selected for their complementary abilities to clarify both the individual-level factors and structural determinants that underlie a complex behavior such as engagement with social care. We expected that the IBM's focus on behavioral intention as well as contextual factors such as environmental constraints would elucidate barriers and facilitators to social care engagement. Furthermore, given the roots of social need in systemic racism and other systems of oppression, the HEIF was fitting for this research.

We employed a multistep process to develop the implementation-focused sections of the interview guide to ensure that data collection was maximally grounded in implementation theory (IBM) as well as an implementation framework (HEIF). We first mapped social care concepts salient to our research questions to IBM constructs to identify the socio-behavioral factors that may underlie engagement with social care (Fig. 2). We then convened multidisciplinary stakeholders, including social workers, primary care and emergency medicine physician-researchers, clinic managers, and qualitative research experts to brainstorm key lines of inquiry corresponding to each study-specific IBM construct. For example, for the "experiential attitudes" IBM construct, which corresponded to "likes and dislikes about the idea of engaging with resources provided by healthcare" in the context of our study, the team suggested that we explore caregivers' feelings about discussing social needs with their healthcare provider during a medical visit. The group also returned to the HEIF to confirm that all caregiver-level factors were accounted for, filling in gaps as needed to ensure that relevant implementation determinants would be thoroughly explored in interviews. After we had generated a comprehensive list of potential lines of inquiry aligning with each IBM and patient-level HEIF construct, we created a matrix matching theoretical constructs and determinants to their relevant study concept and potential interview question(s). We refined the draft interview questions, then piloted the guide with five caregivers of pediatric patients who met study eligibility criteria to confirm clarity and acceptability. The final interview guide explored caregiver experiences with the study social care intervention, facilitators and barriers to using community-based social resources, and experiences and preferences related to receiving social care in the pediatric clinical setting (see Supplemental Material).

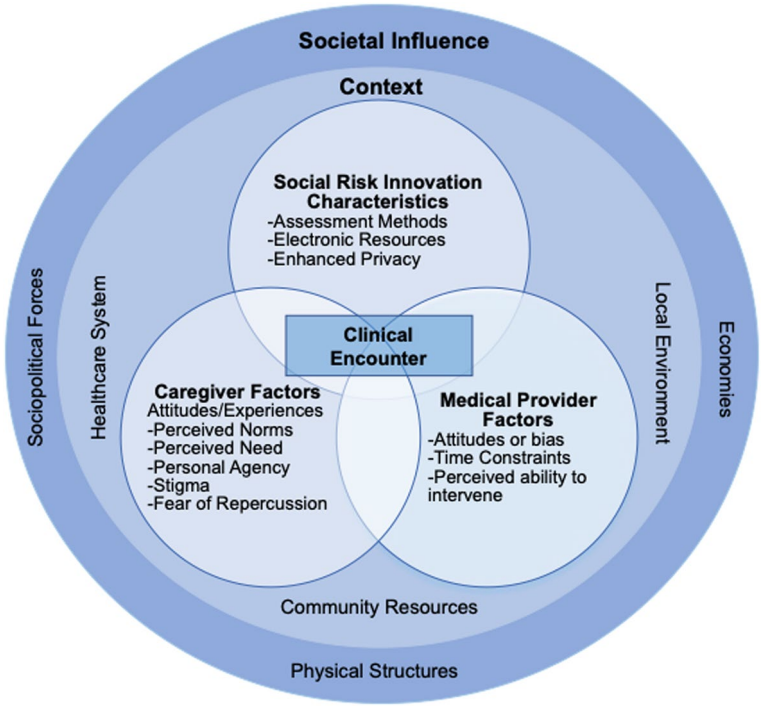

Fig. 1 Health Equity Implementation Framework for the Socially Equitable Care by Understanding Resource Engagement study

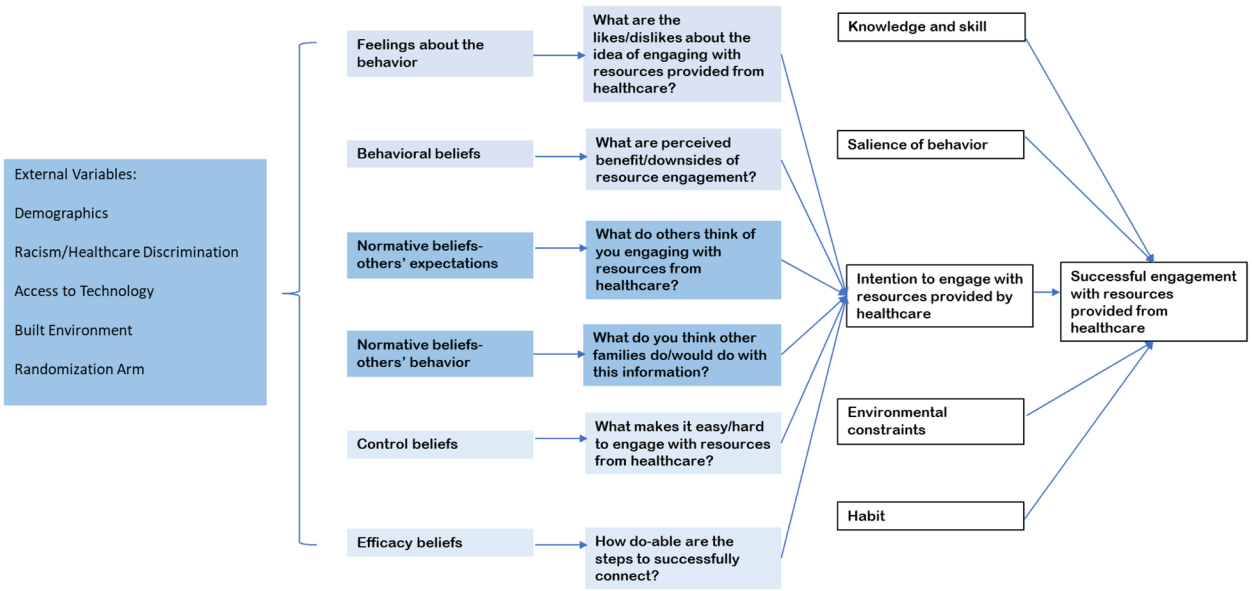

Fig. 2 Integrated Behavioral Model framework for the Socially Squitable Care by Understanding Resource Engagement study

At the time of enrollment, caregivers could consent to be contacted for a semi-structured telephone interview; 70.4% of enrolled caregivers consented. Interview participants were selected using a hybrid random and purposive sampling strategy to ensure representation across demographic groups (race, ethnicity, preferred language, gender, insurance status, education, previous use of social resources) and intervention conditions (randomization arm, enrollment location, receipt of resource navigation) (Table 1). Interviews were conducted between 30

Table 1 Demographic characteristics of study participants included in subsample used for comparison of rapid and traditional qualitative analysis methods

	Study participants: 10 N(%)
Age (years)	
18–24	3 (30%)
25–34	5 (50%)
35–44	2 (20%)
>45	0 (0%)
Gender	
Female	9 (90%)
Male	1 (10%)
Trans male, trans female, genderqueer, different identity, or prefer not to answer	0 (0%)
Hispanic/Latino	
Yes	2 (20%)
Race	
Black/African American	7 (70%)
White	1 (10%)
American Indian or Alaska Native	1 (10%)
Asian	0 (0%)
Native Hawaiian or Other Pacific Islander	0 (0%)
Other	1 (10%)
More than one race	0 (0%)
Insurance status	
Medical assistance/Medicaid	8 (80%)
Private	2 (20%)
No insurance	0 (%)
Other	0 (0%)
Highest level of school attended	
<High school	0 (0%)
High school	7 (70%)
College	3 (30%)
Graduate school	0 (0%)
Previous use of community or government social resources	
Yes	8 (80%)
Randomization arm	
Social risk screening arm	4 (40%)
Resource menu arm	3 (30%)
No assessment arm	3 (30%)
Enrollment location	
Emergency department	5 (50%)
Primary care	5 (50%)
Received study resource navigation	
Yes	5 (50%)

and 45 days after study recruitment to allow time for resource engagement and resolution of any acute medical complaint. All participants again gave verbal informed consent prior to their interview. The first ten interviews conducted were selected for analysis through both traditional in-depth and rapid approaches; these ten interviews were completed between September and November 2022. We evaluated the rigor our of rapid method early in data collection to identify any potential need for modifications before applying it to the entirety of the study, as we planned to use these findings to inform social care implementation in real time. A total of 60 interviews were conducted in the larger qualitative study.

We used the Standards for Reporting Qualitative Research (SRQR) reporting guidelines to inform the presentation of our study results (see Supplemental Material). All study procedures were deemed exempt from review by the Children's Hospital of Philadelphia Committee for the Protection of Human Subjects (IRB #21–018785).

Traditional in-depth analysis

Interviews were digitally recorded, deidentified, and transcribed verbatim. Transcripts were reviewed and cleaned by the interviewers, then coded in NVivo 12 using an integrated inductive and deductive approach [23]. An initial codebook was generated based on the interview guide and subsequently modified as new themes emerged from the data. Four study team members (RB, LQ, ECC, JDR) independently coded each transcribed interview using the constant comparison method; the 10 transcripts that comprised our sample for this rapid qualitative analysis study were all either double or triple coded [24]. The study team met twice per month along with the Principal Investigator (DC) to review each coded transcript, assess inter-rater reliability, resolve coding disagreements, and revise code definitions. The team members who performed coding were trained by researchers experienced in qualitative methods (DC and RB), who reviewed coding regularly with the research team and coded these transcripts in parallel.

The coded transcript segments were summarized into a matrix organized by code by a secondary analyst (SCK). Applying a thematic analysis approach, coded data were then distilled into themes and sub-themes that could inform social care implementation: caregiver likes and comforts, dislikes and discomforts, and suggestions regarding the study's process, community resources, and receiving help with social needs in a healthcare setting (Fig. 3). At this stage of coding, themes were intentionally kept granular to rigorously evaluate the degree of overlap between qualitative analysis approaches before further condensing for dissemination purposes.

Rapid analysis

An interview notes template was developed that included the interview questions intended to yield data relevant

	Likes and Comforts	Dislikes and Discomforts	Suggestions	Quotes
SECURE study's process	• Simplicity • Privacy • Accessibility	• Embarrassment • Difficulty with resource navigation	• More research navigation support • Further advertising	"I was a little embarrassed [answering the screening questions], but I knew at the time that I needed the help"
Connecting with community resources	• Information Sharing ○ *Local resources* ○ *Trust in information provided by doctor*	• Burdensome Process ○ *Searching for resource* ○ *Applying for resource*	• Privacy around information provided ○ *Consent*	"Some people nowadays don't have the best attitude towards things. So it kind of like discourages people to want to go to these places, but if you're in desperate need, you can't think about that at the moment because you go to do what you need to do."
Getting help at the doctor's office	• Venue to reach many people • Trust in medical team ○ *Lack of judgement* ○ *Trust in medical expertise*	• Perception that healthcare does not address social needs • Privacy concerns • Mistrust in physician	• Families should not be required to answer screening questions • Documentation only if family consents	"I just I don't think I would be comfortable with [social needs documented in my child's chart], you know, it's just, you know, permanently being in the chart."

Fig. 3 Matrix used to distill interview themes in traditional and rapid qualitative analysis

What do you think about the idea of your child's doctor's office helping people with their social needs?

•
•
•

When is the best time during the doctor's visit to be asked questions about your social needs? Where is the best place? Who is the best person to introduce these questions? How should questions be asked?

•
•

If you were having experiences like running out of food, having the electricity turned off, or not having a safe place to sleep, how would you feel about having them written in your child's medical record (or chart)?

•
•
•

How would it feel if the doctor's office wrote in your child's chart that you were asked screening questions, but did not write your answers?

•
•
•

Fig. 4 Sample portion of the interview notes template used for the rapid analysis method

to social care implementation efforts (Fig. 4). During or shortly after each interview, the interviewer (RB, LQ, ECC, or JDR) documented key participant responses directly in the template, returning to the interview audio recording as necessary; templates required approximately 30 min to complete. A secondary analyst (SCK) listened to the interview recordings of the first 10 interviews to assess completeness in each interview note template and add any missing data. The secondary analyst then used this template to create a summary of participant likes and comforts, dislikes and discomforts, and suggestions related to social care expressed in each individual interview. These summary sections were entered into a copy of the analytic matrix used in our traditional analysis, and content was distilled into overarching themes and sub-themes regarding the study's process, perceptions of using community resources, and thoughts and preferences about receiving help with social needs in a pediatric healthcare setting (Fig. 3). The same approach to discrete theme identification and distillation that was used in traditional analysis was applied to the rapid analysis.

Transcripts from these 10 interviews were used as the main data source for the traditional analysis, while interview

	Rapid Analysis	Traditional Analysis
	Burdensome process a. Searching for resources b. Applying for resources	Resource navigation difficult a. Finding information alone difficult b. Application process burdensome c. Unable to connect with resource d. Waitlists impede ability to receive help
	Embarrassment	Embarrassment about need
	Mistreatment a. Racism's role in decision to use resources b. Racism's role in social needs disparities	Mistreatment a. Racism discourages people from receiving help b. Racism contributes to social needs disparities
	Privacy concerns	Privacy concerns
	Transportation barriers	Transportation barriers
	Mixed experiences with resources	Variable experiences with resources
	Resources provided not enough	Judgement by others
	Time barriers	Need in comparison to others
	Inaccessibility of resources	
	Short deadlines	
	Lack of information about resources	
Total Themes	11	8
Total Subthemes	4	6

Fig. 5 Themes identified related to "connecting with community resources: dislikes and discomforts" in both traditional in-depth and rapid approaches. Themes in orange had no match, themes in green are partial matches, and themes in black fully mapped to a theme in the opposite approach. Total themes and subthemes for this section are calculated in the bottom row

recordings and completed summary notes templates were used as the main data source for the rapid analysis.

Comparison of methods

Consistency of themes

The final matrix structures generated for both the traditional and rapid methods were identical to facilitate theme comparison, with the exception of a representative quotes column in the traditional analysis matrix. Key themes and subthemes generated by both methods were compared using a merged analytic matrix to determine consistency; themes identified through each method were grouped by category and listed in parallel to identify points of overlap and difference. When mapping themes onto each other, we followed Taylor et al.'s approach of categorizing themes into matches, partial matches, and no matches (Fig. 5) [25]. A match was defined as an identical theme found in both analyses, while a partial match was two similar but not identical themes found in each analysis. No match was defined as a theme not found in the alternative approach in any capacity.

Quantity of themes

The number of themes and subthemes generated by each method were quantified and compared (Fig. 5).

Results

Consistency of findings

In our qualitative comparison of findings between rapid and traditional analytic approaches, the rapid analysis produced similar key themes as the traditional analysis in both content and quantity. Themes identified in the traditional approach consistently mapped to themes identified in our rapid analysis; 92.8% of themes generated in the traditional analysis were represented in the rapid analysis as either a match or partial match, demonstrating that our rapid approach was successful in capturing the majority of themes generated by the traditional approach.

Examples of full thematic matches are included in Fig. 5. A total of 64 themes from the rapid analysis and 61 findings from the traditional analysis were categorized as full matches, while 5 themes from the rapid analysis and 3 themes from the traditional analysis were categorized as partial matches. Several nuanced themes from the rapid analysis mapped to a single broader theme identified in the traditional analysis, accounting for the difference in full matches. One example of a partial match is the theme of concern about judgement by others when accessing community resources, found in the rapid analysis. This was not explicitly included as a theme in the traditional analysis, however themes of embarrassment and concern

for privacy surrounding resource use and mistreatment by program staff imply similar conclusions as the theme of judgement. Eight themes in total were categorized as having no match: 3 (4.2%) of all rapid analysis themes and 5 (7.2%) of the traditional analysis themes. Thus, while the rapid approach excluded several themes that were found through the traditional approach, it also captured themes that were missed in the traditional approach.

Notably, the quantity of themes found in both methods were similar. The traditional analysis yielded a total of 69 themes and 22 subthemes, while our rapid approach yielded 72 themes and 21 subthemes.

Discussion

Qualitative methods help capture the richness of participant perspectives, strengthening implementation efforts by centering the voices and experiences of those engaging with an intervention [1]. However, traditional approaches to qualitative analysis are time intensive and results from this research can become less relevant by the time of publication, creating barriers to meaningful implementation [5–7]. Rapid qualitative methods have emerged to help address this barrier [4]. The purpose of our research was to develop and assess a method of rapid qualitative analysis using a novel structured interview notes template that allows for faster generation and implementation of qualitative research findings. We found this rapid method to be a feasible and rigorous approach to generating themes for the subset of caregiver interviews analyzed. A concern around rapid analytic methods is that the abbreviated analysis would lose richness and quantity of themes generated [9]; however, our rapid method successfully maintained this rigor with 92.8% of themes found in the traditional analysis produced in the rapid method as well. While the rapid method did not capture 5 of the 69 total implementation-focused themes found in the traditional method, it did successfully capture 3 important themes that were not generated in the traditional method.

Our pragmatic rapid qualitative method entailed completion of a structured interview notes template by the interviewer shortly after each interview, which was subsequently reviewed and further summarized by an additional analyst. This approach builds on the method described by Gale et al., maintaining use of a theory-informed summary template to organize implementation-relevant data [6]. Rather than populate the summary template with data extracted from interview transcripts, however, our method uses structured interviewer notes to capture key data. This further consolidates the time from data collection to analysis by integrating interview summary notetaking into the interview process rather than waiting for completed transcripts. Furthermore, our rapid approach promotes inclusion of meaning conveyed through non-verbal cues such as pauses, laughter, and tone [26]. While artificial intelligence-generated text summaries are becoming more widely accessible as an alternative to more resource intensive approaches to condensing data, they cannot yet accurately capture these important elements. This approach also circumvents the cost associated with transcription while keeping rapid coding simple and structured.

As data were coded into a summary template organized by interview question in our method rather than by theoretical construct, interviewers and coders were not required to have significant implementation science expertise to successfully collect and analyze data. As the HEIF and IBM were used to develop the interview guide and interview notes template, data were naturally segmented in line with these frameworks. This resulted in a simpler, lower resource analysis protocol that contributed to the work's overall efficiency while remaining grounded in an implementation science theory and framework. Furthermore, integrating a theory as well as a framework yielded more comprehensive findings, as we used the IBM to deepen our understanding of constructs within the HEIF. In line with the Gale et al. method, a secondary analyst reviewed summary templates to ensure quality and consistency, and analytic matrices were used to identify implementation-relevant themes and subthemes across participants [6].

Our rapid qualitative approach successfully captured similar implementation-oriented themes as a traditional analytic approach, adding to the existing literature of how rapid qualitative analysis can be a valid and rigorous method for performing qualitative data analysis [4]. However, while a major focus of this work is emphasizing the importance and utility of rapid methods in qualitative implementation research, this rapid approach is intended to guide researchers in identifying key insights to inform implementation efforts in real time as a complement to traditional analysis rather than a replacement. Our rapid analysis had a deliberately narrow focus on identifying implementation factors from the broader interview, enhancing the comprehensiveness of the rapidly collected data and concordance of the rapid and traditional findings. This identifies an important use-case for rapid qualitative methods as an adjunct to traditional qualitative analysis, particularly in hybrid effectiveness-implementation studies or research aimed at informing practice or policy in real time, generating rapid information regarding determinants to implementation success without supplanting the importance of detailed thematic analysis of effectiveness outcomes. Furthermore, traditional methods generate a more comprehensive account of a participant's viewpoint, reveal findings beyond those that are implementation-specific, and can be hypothesis-generating for future research.

Our team used a secondary analyst to review interview templates for completeness. As is the case with double coding in traditional qualitative analysis, this additional analyst enhanced the rigor of our rapid analysis by assuring that the interview notes templates were completed comprehensively [27]. However, use of a secondary analyst could introduce bias in the comparison of rapid and traditional methods. Although minimal content was omitted during interview note completion by the initial analyst and thus we expect that the secondary analyst's additional coding had limited impact on the results of our comparison, the potential effect of a secondary coder should be accounted for in future studies. Alternatively, given the completeness of the interview notes templates by the interviewer, we anticipate that the level of detail desired could be attained through additional interviewer training, eliminating the need for a secondary analyst entirely. Completion of both the interview notes template and thematic summary by the interviewer further enhances the pragmatism and efficiency of this approach by conserving staffing resources. Future research could assess the validity of this method when performed by the primary research team without a secondary analyst.

Limitations

It is important to note that qualitative research is subjective by nature and thus can be influenced by bias and differences in interpretation, contributing to limitations to our study. We worked to eliminate this subjectivity by triple coding transcripts, holding frequent team meetings to review coding, as well as by using a secondary analyst to complete analysis of rapid interview note templates. The comparison of themes was conducted by the same secondary analyst, which may introduce potential bias in theme concordance between both methods. This is, however, consistent with previous literature studying rapid qualitative methods [2] and is a pragmatic approach that minimizes the need for additional researchers and resources. While successful in our study, we performed this method to analyze ten caregiver interviews only; more research is necessary to demonstrate that this method is generalizable to other settings.

Conclusion

A major concern of implementation researchers when developing rapid qualitative analytic approaches is balancing scientific rigor and validity with time to actionable results. We describe a rapid yet rigorous method that generates implementation-related findings with comparable depth and breadth as those found in a traditional qualitative analytic approach. Additionally, it is a pragmatic approach that requires minimal training to complete, and generates results in near real-time. Future research could further streamline this method and confirm its validity in other settings and fields of study. While not intended to replace traditional analysis, this approach holds promise to advance the use of rapid qualitative methods in implementation science research.

Abbreviations

HEIF	Health Equity Implementation Framework
IBM	Integrated Behavioral Model
SECURE	Socially Equitable Care by Understanding Resource Engagement Study

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s43058-025-00709-w.

Supplementary Material 1.

Supplementary Material 2.

Acknowledgements

Not applicable.

Authors' contributions

RB developed the interview script, conducted interviews and carried out initial data analysis, developed the rapid qualitative analysis method, supervised secondary data analysis, and drafted the initial manuscript. SCK conducted secondary data analysis and thematic analysis, compared results from both analytic methods, drafted the initial manuscript, and reviewed and revised the manuscript. ECC and JDR conducted interviews, carried out initial data analysis, and reviewed and revised the manuscript. DC developed the rapid qualitative analysis method, developed the interview script, supervised data collection and analysis, and reviewed and revised the manuscript. All authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

Funding

The authors received funding to support this research from the William T. Grant Foundation and the Emergency Medicine Foundation. The sponsors had no role in study conceptualization, design, data collection, analysis, and interpretation of data, preparation of the manuscript, or in the decision to submit the article for publication.

Data availability

The datasets generated and/or analysed during the current study are not publicly available to protect study participant privacy but are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

All study procedures were deemed exempt from review by the Children's Hospital of Philadelphia Committee for the Protection of Human Subjects. All participants provided verbal informed consent prior to enrollment in the study.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Author details

[1]Policylab and Clinical Futures, Children's Hospital of Philadelphia, 2716 South Street, Philadelphia, PA 19146, USA. [2]Perelman School of Medicine at the University of Pennsylvania, 3400 Civic Center Blvd, Philadelphia, PA 19104, USA. [3]University of Pennsylvania School of Public Health, 3400 Civic Center Blvd, Philadelphia, PA 19104, USA.

Received: 8 November 2024 Accepted: 21 February 2025
Published online: 03 March 2025

References

1. Hamilton AB, Finley EP. Qualitative methods in implementation research: an introduction. Psychiatry Res. 2019;1(280):112516.
2. Nevedal AL, Reardon CM, Opra Widerquist MA, Jackson GL, Cutrona SL, White BS, et al. Rapid versus traditional qualitative analysis using the Consolidated Framework for Implementation Research (CFIR). Implement Sci. 2021;16(1):67.
3. Proctor E, Silmere H, Raghavan R, Hovmand P, Aarons G, Bunger A, et al. Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. Adm Policy Ment Health. 2011;38(2):65–76.
4. Vindrola-Padros C, Johnson GA. Rapid techniques in qualitative research: a critical review of the literature. Qual Health Res. 2020;30(10):1596–604.
5. Beidas RS, Dorsey S, Lewis CC, Lyon AR, Powell BJ, Purtle J, et al. Promises and pitfalls in implementation science from the perspective of US-based researchers: learning from a pre-mortem. Implement Sci. 2022;17(1):55.
6. Gale RC, Wu J, Erhardt T, Bounthavong M, Reardon CM, Damschroder LJ, et al. Comparison of rapid vs in-depth qualitative analytic methods from a process evaluation of academic detailing in the Veterans Health Administration. Implement Sci. 2019;14(1):11.
7. Riley WT, Glasgow RE, Etheredge L, Abernethy AP. Rapid, responsive, relevant (R3) research: a call for a rapid learning health research enterprise. Clin Transl Med. 2013;2(1):e10.
8. Mathieson A, Elvey R, Wilson P. Development and application of a qualitative rapid analysis framework in a hybrid trial within primary care. BMJ Open. 2024;14(7):e076792.
9. McNall M, Foster-Fishman PG. Methods of rapid evaluation, assessment, and appraisal. Am J Eval. 2007;28(2):151–68.
10. Eaton K, Stritzke WGK, Ohan JL. Using scribes in qualitative research as an alternative to transcription. Qual Rep. 2019;24(3):586–606.
11. Gravois T, Rosenfield S, Greenberg B. Establishing reliability for coding implementation concerns of school-based teams from audiotapes. Eval Rev. 1992;16(5):562–9.
12. Greenwood M, Kendrick T, Davies H, Gill FJ. Hearing voices: comparing two methods for analysis of focus group data. Appl Nurs Res. 2017;1(35):90–3.
13. Burgess-Allen J, Owen-Smith V. Using mind mapping techniques for rapid qualitative data analysis in public participation processes. Health Expect. 2010;13(4):406–15.
14. Halcomb EJ, Davidson PM. Is verbatim transcription of interview data always necessary? Appl Nurs Res. 2006;19(1):38–42.
15. Tessier S. From field notes, to transcripts, to tape recordings: evolution or combination? Int J Qual Methods. 2012;11. https://doi.org/10.1177/160940691201100410.
16. Deloitte. Social determinants of health: how are hospitals and health systems investing in and addressing social needs?. Available from: https://www2.deloitte.com/content/dam/Deloitte/us/Documents/life-sciencehealth-care/us-lshc-addressing-social-determinants-of-health.pdf.
17. Gottlieb LM, Wing H, Adler NE. A systematic review of interventions on patients' social and economic needs. Am J Prev Med. 2017Nov;53(5):719–29.
18. Gottlieb LM, Adler NE, Wing H, Velazquez D, Keeton V, Romero A, et al. Effects of in-person assistance vs personalized written resources about social services on household social risks and child and caregiver health. JAMA Netw Open. 2020;3(3):e200701.
19. Lindau ST, Makelarski JA, Abramsohn EM, Beiser DG, Boyd K, Chou C, et al. CommunityRx: a real-world controlled clinical trial of a scalable, low-intensity community resource referral intervention. Am J Public Health. 2019;109(4):600–6.
20. Bouchelle Z, Vasan A, Cholera R. Mandates and incentives to support social needs screening—challenges and opportunities. JAMA Pediatr. 2023. Available from: https://jamanetwork.com/journals/jamapediatrics/fullarticle/2812149.
21. Woodward EN, Matthieu MM, Uchendu US, Rogal S, Kirchner JE. The health equity implementation framework: proposal and preliminary study of hepatitis C virus treatment. Implement Sci. 2019;14(1):26.
22. Glanz K, Rimer BK, Viswanath K. Health behavior and education. 5th ed. San Francisco: Jossey-Bass; 2008. p. 67–96.
23. Datagain. 2023. Available from: https://antdatagain.com/.
24. Boeije H. A purposeful approach to the constant comparative method in the analysis of qualitative interviews. Qual Quant. 2002;36(4):391–409.
25. Taylor B, Henshall C, Kenyon S, Litchfield I, Greenfield S. Can rapid approaches to qualitative analysis deliver timely, valid findings to clinical leaders? A mixed methods study comparing rapid and thematic analysis. BMJ Open. 2018;8(10):e019993.
26. Point S, Baruch Y. (Re)thinking transcription strategies: current challenges and future research directions. Scand J Manag. 2023;39(2): 101272.
27. O'Connor C, Joffe H. Intercoder reliability in qualitative research: debates and practical guidelines. Int J Qual Methods. 2020;1(19):1609406919899220.

Publisher's Note