

Quick and dirty?

A systematic review of the use of rapid ethnographies in healthcare organisation and delivery

Cecilia Vindrola-Padros¹ and Bruno Vindrola-Padros²

1. Department of Applied Health Research, University College London, London, UK
2. Institute of Archaeology, University College London, London, UK

ABSTRACT

Background: The ability to capture the complexities of healthcare practices and the quick turnaround of findings make rapid ethnographies appealing to the healthcare sector, where changing organisational climates and priorities require actionable findings at strategic time points. Despite methodological advancement, there continue to be challenges in the implementation of rapid ethnographies concerning sampling, the interpretation of findings, and management of field research. The purpose of this review was to explore the benefits and challenges of using rapid ethnographies to inform healthcare organisation and delivery and identify areas that require improvement.

Methods: This was a systematic review of the literature using the PRISMA guidelines. We used the Mixed Methods Appraisal Tool (MMAT) to assess the quality of the articles. We developed the search strategy using the PICOS framework and searched for peer-reviewed articles in MEDLINE, CINAHL PLUS, Web of Science, and ProQuest Central. We included articles that reported findings from rapid ethnographies in healthcare contexts or addressing issues related to health service use.

Results: 26 articles were included in the review. We found an increase in the use of rapid ethnographies in the last two years. We found variability in terminology and developed a typology to clarify conceptual differences. The studies generated findings that could be used to inform policy and practice. The main limitations of the studies were: the poor quality of reporting of study designs, mainly data analysis methods, and lack of reflexivity.

Conclusions: Rapid ethnographies have the potential to generate findings that can inform changes in healthcare practices in a timely manner, but greater attention needs to be paid to the reflexive interpretation of findings and the description of research methods.

Registration number: CRD42017065874

BACKGROUND

In 1988, Scrimshaw and Hurtado (1) posed the question, “must one spend a year in the field collecting ethnographic data in order to make useful recommendations for a health program?” Since then, the field of health services research has adapted to the immediacy of pressing health concerns and the changing priorities and climates of healthcare organisations by adopting a wide range of rapid research approaches (2-4). Various forms of rapid research have been used, including rapid evaluations, rapid appraisals, rapid assessments and rapid ethnographies (5-7). The development of rapid research methodologies has been influenced by an acknowledgment of the importance of generating findings within timeframes when they can still be actionable and used to inform improvements in care. As McNall and colleagues have argued “the timeliness of information is no less critical than its accuracy” (5).

Rapid ethnographies have been widely used in community-based research, but are now also becoming increasingly popular in healthcare organisations (8,9). Rapid ethnographies are used because they are able to capture the complexities of service provision, the social and cultural factors shaping healthcare use and delivery, and the nuanced practices of care provision in short timeframes (10). Rapid ethnographies are able to disentangle the organisational factors that play a role in the implementation of new healthcare technologies or programs (11).

Some authors have argued that rapid ethnographies might contradict one of the main principles of traditional ethnography, where researchers need to be immersed for long periods of time in the field to develop relationships, understand the local context, and collect in-depth and rich data (12). The concern is that rapid ethnographies might end up being a ‘quick and dirty’ exercise, unable to capture the wide range of views of actors in the field or analyse changes over time (12). Researchers conducting rapid ethnographies face tensions between the breadth and

depth of the data they collect and often need to depend on participants who are most accessible due to time constraints (potentially missing variability in experiences) (3,4,10,13). There are multiple and overlapping definitions of rapid ethnographies and lack of consensus regarding the threshold for rapid studies.

Recruitment and training of teams of field researchers, a strategy used in rapid ethnographies to speed up data collection, takes time and can create difficulties if the researchers do not have the required skills (3,4,10,13,14). Prolonged engagement, a source of internal validity and credibility of the researcher, might need to be replaced with other forms of data cross-checking (3,4,14). The rapid study timeframes might not allow researchers enough time to practice reflexivity throughout data collection (12,13) and ethical governance processes might need to be adapted to respond to time pressures (13,14).

Despite these challenges, some authors have suggested that rich ethnographic research can still be carried out over short periods of high-intensity fieldwork (12,15). This high-intensity fieldwork needs to be accompanied by a conceptual shift where we abandon the notion that rapid ethnographies will not be able to capture the required level of richness normally expected of ethnographies, only because they are conducted over a shorter period of time. As Pink and Morgan (12) have argued, short-term ethnographies entail the creation of “different methodological, practical and analytical entry points into the lives of others” through the adaptation of research methods, a different delineation of ‘the field’, and an increase in the intensity of fieldwork, which still produce valuable and reliable ways of knowing. This concept of short-term ethnographies seems promising for health services research, but additional work is required to understand how rapid ethnographies are normally carried out in practice.

The purpose of this review was to explore the use rapid ethnographies in health services research, paying close attention to the challenges outlined above. We sought to go beyond the representation of shorter timeframes ‘as limitations’ (12) and explore the methodological opportunities afforded by rapid ethnographies. We hope that our in-depth analysis can help identify the strategies used by researchers to conduct ethnographies in short timescales, the areas that still create difficulties, and the ways in which we can improve our use of rapid ethnographies to inform changes in the organisation and delivery of care.

METHODS

Design

This is a systematic review of the literature based on peer-reviewed academic articles. The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) statement was used to guide the reporting of the methods and findings (16). The review was registered with PROSPERO (ref: CRD42017065874).

Research questions

The review sought to explore how rapid ethnographies have been used in health services research. In order to develop our research questions, we created a thematic framework on the challenges that arise when carrying out rapid ethnographies and issues authors have highlighted as requiring further exploration (see Table 1). This framework was modified and expanded throughout the review, as new issues emerged from the reviewed articles. This iterative process of reviewing, or contingent design, is based on the continuous refinement of research questions and development of subsequent syntheses of data (17,18).

Table 1. Thematic framework on potential challenges in rapid ethnographies used to inform the research questions

Key literature	Potential challenges/issues that require more research	Description of the challenges	Research questions guiding this review
(3, 4, 10, 12)	'Breadth' vs. 'depth' in data collection	Inability to capture changes over time, understand all relevant social and cultural factors at stake, or conflict and contradictions.	What were the main research designs?
(3, 4, 10, 12, 14)	Representativeness and sample size and selection	Dependency on most accessible informants and loss of multiplicity of voices.	What were the sample sizes used in the study and selection of groups/participants? How were these justified?
(3, 4, 10, 14)	Use and training of local research assistants (research assistants from the observed field)	Local research assistants are not always available, have the required skills or willingness to take part. Training takes time. Research undertaken by researchers without an anthropological background might limit the quality of the study.	Who were the data collectors? Why were they recruited? Was training provided? Were interpreters used? Were data collectors fluent in the local language?
(3, 10)	Lone researcher vs. multi-membered team	Multi-membered teams can maximize resources and cover a wider range of expertise. Recruitment might be an issue and clear roles in the field need to be outlined.	Who are the article authors and what are their affiliations? How were research teams defined? How many field researchers were used and what was the justification?
(3, 4, 12, 14)	'In and out' researcher vs. long-term engagement	New researchers might get more attention, but lack familiarity with the study area. Prolonged engagement often increases credibility and internal validity. Prolonged engagement might also lead to stronger relationships between research participants and the field researchers.	Did the research team have prior research experience in the study area? Does the research team report the establishment of relationships with potential research participants prior to the study?

(13, 14)	Time for reflexivity	The rapid study timeframes might not allow researchers to critically analyze the position they play in the fieldsite and their role in the collection and analysis of data.	Does the article include reflections on the authors' positionality or factors that might have influenced data collection and analysis?
(12, 14)	Research governance, and ethical principles	Time pressures should not deter researchers from undergoing the required governance and informed consent processes.	What were the research governance processes? Was the study approved by an ethics committee? Did the researchers follow an informed consent process?

Search strategy

We used the PICOS (Population, Intervention, Comparison, Outcomes, Setting) framework (19) to develop the search strategy (Appendix 1). We conducted a review of literature published between 1937 and April 2017 using multiple databases: MEDLINE, CINAHL PLUS, Web of Science and ProQuest Central. Details of the online search strategy can be found in Appendix 1. Results were combined into RefWorks and duplicates were removed. The reference lists of included articles were screened to identify additional relevant publications.

Selection

The two authors (CVP and BVP) screened the articles in three phases (title, abstract, and full text) based on the following inclusion criteria: 1) The article was based on an empirical study that self-identified as a rapid ethnography (or variations of this term as alluded to in our search terms); 2) The research was carried out in the health services/healthcare context or addressed issues relevant to health service use. We decided to include articles that self-identified as rapid ethnographies (or variations of this term) to capture the different ways in which researchers are thinking about and applying rapid approaches to ethnographic research. We wanted to explore

the variability in the application of this label and build a typology of terms. Disagreements were discussed until consensus was reached. We did not apply any restrictions in terms of language or date of publication.

Data extraction and management

The included articles were analyzed using a data extraction form developed in REDCap (Research Electronic Data Capture). The categories used in the data extraction form are summarized in Appendix 2. The form was developed after the initial screening of full-text articles. It was then piloted independently by the two authors (CVP and BVP) using a random sample of five articles. Disagreements were discussed until consensus was reached. The form was changed based on the findings from the pilot.

Data synthesis

Data were exported from REDCap and the main article characteristics were synthesized. The REDCap report presented quantitative summaries of some of the entries in our data extraction form (for details see Appendix 2). The information entered in free text boxes was exported from REDCap and analyzed using framework analysis (20). The themes were based on our research questions, but we were also sensitive to themes emerging from the data.

Quality assessment

We used the Mixed Methods Appraisal Tool (MMAT) to assess the quality of the articles (21,22). This tool was selected because several of the studies included in the review were mixed-methods studies. The two authors rated these articles independently. In cases of disagreement,

the raters discussed their responses until consensus was reached. Inter-rater reliability was calculated using the kappa statistic (23).

RESULTS

Identification of articles

The initial search yielded 506 published articles (Figure 1). These were screened based on title and type of article, resulting in 118. Screening based on abstracts left 45 articles for full-text review. This phase in screening led to 25 articles that met the inclusion criteria. One additional article was identified by reviewing the bibliography, ultimately leading to 26 articles (on 24 studies) included in the review. We also excluded articles that focused on prevention and education and did not involve aspects of service delivery.

– INSERT FIGURE 1 HERE –

The 24 studies were subjected to a quality appraisal process undertaken by the two authors using the MMAT tool (see Supplementary Table 1 for study-specific appraisal results). Inter-rater agreement was 88% with a Cohen's Kappa indicating substantial agreement ($k=0.74$). Overall, most studies covered three out of four criteria. A common limitation found in the articles was the lack of reflection on the researcher's influence over the findings. In other words, only a few articles engaged with issues of reflexivity and critically presented their preconceptions and how these might have influenced processes of data collection and analysis.

Characteristics of included articles

The characteristics of the 26 articles included in the review are presented in Supplementary Table 1. The articles were published between 1989 and 2017, but we noticed that approximately

60% of the articles (11 articles) were published in the last two years (2015-2017). All articles were published in English. The locations of the studies included a wide range of geographical contexts. Around a third of the studies took place in the USA (9 articles), two took place in Thailand, and one each in the UK, Ghana, South Africa, Uganda, Sri Lanka, India, West Africa (specific country not reported), Ethiopia, Bolivia, Sweden, Mozambique, Haiti, Australia, and Sierra Leone. Ten of the studies took place in local or specialized hospitals, six took place in a community setting, four took place in primary care, three combined primary and secondary care settings, and one study took place in the community and a primary care setting. Most authors had an affiliation to a department in medicine, followed by public health, nursing, and anthropology.

Definitions of rapid ethnographies and reasons for use

Our review allowed us to develop a typology of terms used to describe rapid ethnographies. The main terms and definitions are presented in Table 2. Eight terms were used to describe rapid ethnographies. There was considerable overlap in definitions and, in some cases, the supporting references were used interchangeably. Furthermore, six articles did not include any definition or reference to other publications defining the term.

Table 2. Typology of rapid ethnographies

Term used	Articles using the term	Definitions used in the articles
Rapid ethnography (RE)	(9,11,24-31)	<ul style="list-style-type: none"> • Develop a reasonable understanding, in a compressed period of time, of the people and contexts being studied (24). • Uses three main sources of data: participant observation, semi-structured interviews, and document analysis (28). • Includes brief observations at

		<p>multiple field sites, in-depth interviews with key informants, engagement with social theory, and analysis of archival materials and quantitative data (9).</p> <ul style="list-style-type: none"> • Same definition as RAP (see below) (11). • Ethnographic methods for quickly gathering social, cultural, and behavioral information on health-related problems (30).
Quick ethnography (QE)	(8)	<ul style="list-style-type: none"> • Means for collecting and analyzing high-quality ethnographic data in a short timeframe (90 days or less) (8). • Gather rich data without extended period of time in the field (8).
Focused ethnography (FE)*	(32)	<ul style="list-style-type: none"> • Short duration fieldwork balanced by data collection and analysis (32).
Rapid ethnographic assessment (REA)	(33-39)	<ul style="list-style-type: none"> • A phenomenological method for rapid acquisition of data that are rich in life experiences of the subject population (38).
Rapid assessment, response and evaluation (RARE)*	(40)	<ul style="list-style-type: none"> • Systematic ethnographic data collection and analysis techniques complemented by survey information and direct observation studies (40). • Produces data that can be summarized in a way that can be understood by all of the parties (40). • Allows clear triangulation of findings that provide reliability and validity checks on complementary data for each domain (40). • Research is normally carried out by field teams (40).
Rapid assessment process (RAP)	(41-44)	<ul style="list-style-type: none"> • Derived from anthropological methods and theories and is closely related to other expedited methods for capturing critical social and cultural data surrounding a focused program topic (41). • A way of gathering, analyzing, and interpreting high quality ethnographic data expeditiously so

		<p>that action can be taken as quickly as possible (42, 43, 44).</p> <ul style="list-style-type: none"> • Uses a mix of qualitative and quantitative methods (42, 43, 44). • Substitutes intensive, team interaction in both the collection and analysis of data, for the prolonged fieldwork formally associated with ethnography (42, 43, 44).
Focused rapid ethnographic evaluation (FREE)*	(45)	<ul style="list-style-type: none"> • Similar to other rapid ethnography approaches, it differs in the sense that in FREE there is extensive use of field notes instead of digital recordings (45).
Short term focused video ethnographic case study*	(46)	<ul style="list-style-type: none"> • Short-term video ethnography, to create an intensive, complex, and rich data set (46). • Permits immersion into experience without being intrusive (46).

*These terms were not used in the search strategy, but emerged from the reviewed articles.

Justifications for the use of rapid ethnographies were based on its ability to generate rich and in-depth data, capture a wide range of perspectives, explore the nuances of care-seeking practices, provide a holistic understanding of service delivery, and document activities or interactions as they occur in practice. These features of rapid ethnographies allowed the generation of research findings with a close resemblance to the lived realities of service providers and users and were, therefore, deemed suitable to inform service delivery. For instance, Goepf et al. (41) argued that RAPs can “close the gap between needs as perceived by planners and by the intended users of services, which in turn increases uptake and adoption of services”.

Research topics

The research topics covered by the studies could be organised in five main categories: 1) an exploration of health attitudes and healthcare seeking practices, 2) the identification of barriers to health service use, 3) the evaluation of the use of services or information systems by healthcare staff, 4) an analysis of patients' experiences of treatment and the built environment, and 5) an assessment of healthcare professionals' team dynamics. These topics were explored in the context of different types of health services including: end of life care, palliative care, emergency services, maternity services, immunization, intensive care and surgery. The studies were based on the delivery of services to patients diagnosed with HIV/AIDS, stroke and malaria as well as those experiencing multiple conditions.

Research designs

Study timeframes

The study durations ranged from 5 days to 6 months, and some studies did not specify the length of the study or only included the number of hours of observation. Three studies used a series of intensive periods in each of the study sites. Ash et al. (42) and Chesluk et al. (24) spent 5-6 days at each site and Wright et al. (43) used intensive one to two-week periods at each site.

Data collection

Most of the studies combined multiple methods of data collection. The most common combination was interviews and observations (used in 9 studies). In the case of four studies, focus groups were carried out in addition to interviews and observations (25,26,33,34). Three studies were based on focus group and interviews (27,36,47). Two studies combined interviews, observations, focus groups, and mapping (37,40). One study combined interviews, observations, documentary analysis and a review of secondary data sources (41). Another study combined

interviews, observations, and documentary analysis (28). Two studies combined interviews, observations and a field survey (9,42-44). One study only used interviews (38) and another study combined observations with photographic diaries (8). The types of interviews, observations, focus groups, and mapping styles varied. We have listed these in Table 3.

Table 3. Types of interviews, observations, focus groups, and mapping processes

Interviews		Observations		Focus groups		Mapping and surveys	
Type	Articles	Type	Articles	Type	Articles	Type	Articles
Semi-structured	(11, 26, 27, 30-33, 36, 37, 39, 43, 45)	Ethnographic observations	(11, 31, 32)	Focus groups	(25-27, 33, 34, 40, 47) (28, 29, 30, 31, 32, 33, 36)	Health walks	(37)
Structured	(25)	Video observations	(46)	Natural groups	(33)	Field surveys	(9, 43, 44)
Unstructured	(25)	Participant observation	(30, 33, 41, 28, 45)	Informal focus groups	(9)	Photographic documentation of spaces	(8)
Opportunistic or rapid 'street intercept'	(11, 40)	Direct observation	(25, 40, 48)			Mapping and geocoding	(40)
In-depth	(9, 25, 28, 29, 34-36, 38, 41,)	Shadowing	(8,11)				
Key informant/expert	(40, 42)	Observations (specific type not specified)	(24, 26, 34)				
Informal discussions	(27)	Tour observations	(9)				
Conversational interviews	(24)	Clinical observations	(43)				
Video-cued interviews	(46)						

Most studies used more than one field researcher. Eight studies indicated that training was offered to field researchers (26,27,36,37,40,41,43,47). Five teams used interpreters (25,29,30,37,48) and three other teams employed field researchers fluent in the local language (26,36,47). Three articles indicated that the research team had prior experience in the area (31,34,46), while three articles reported collaborating with local research teams or organisations to seek guidance throughout the research (37,42,48).

Sampling

Sample sizes varied considerably and study populations included a wide range of stakeholders such as patients, carers or family members, and healthcare professionals (full sample details for each study are presented in Supplementary Table 1). Almost all of the studies (with the exception of three) provided a justification for the sampling of sites and participants. Sites were often sampled to represent different types of patient populations, service availability and service utilization. Three studies indicated that sampling was informed by researchers or practitioners with prior experience in the area (31,34,48). Sampling in two studies was informed by the results of surveys carried out before the rapid ethnographies (27,47). Most of the studies (17 of the 24) involved multi-sited research.

Data analysis

Almost all of the studies used a thematic approach to analyse the data (20 of 24 studies), with the exception of three studies which used narrative analysis to explore patient experiences

(8), coding trees to develop decision-making matrices (27) and ranking of barriers to health service utilisation (33). Two studies did not specify the methods used to analyse the data (28,34).

Ethical approval

Most of the articles indicated that the studies had been approved by the relevant ethics committees and researchers had undergone an informed consent process with potential participants before data collection. Three studies did not report any information on ethical governance processes (33,34,41).

Use of findings

More than half of the studies reported using the study findings to inform changes in policy or practice. Three studies were used to inform strategies led by UNICEF (30,36,47). Findings from three studies were used to create or modify existing training programs for clinicians (25,26,41). Schwitters et al. (29) used the study to assist in the implementation of new health services (mobile health clinics), while Mullaney et al. (8), Choy et al. (28), Needle et al. (40), and Chesluk et al. (31) used the findings to reconfigure existing services.

Murray et al. (48) used their rapid ethnography to inform local policies, and Agyepong and Manderson (34) used the study findings to develop a field manual for the rapid assessment of the cultural aspects of malaria. Findings were shared mainly through reports and academic publications, but some of the authors also reported sharing the results of studies through meetings and workshops with relevant stakeholders (37,44).

In five of the studies included in the review, rapid ethnographies were used to inform other strands of research (27,33,34,37,40). For instance, Coreil et al. (33) and Agyepong and Manderson (34) used qualitative data from the rapid ethnography to design structured

questionnaires. Culhane-Pera et al. (27) used the rapid ethnography findings to create four categories of pregnancies that would then be used to inform the sampling for a large village survey.

DISCUSSION

The purpose of this review was to analyse the use of rapid ethnographies in the healthcare context. The studies were of average quality (assessed in relation to the MMAT), with clear limitations concerning the practice of reflexivity, that is, the authors' critical analysis of the position they occupy throughout the research process and how they participate in the production of knowledge (49). We believe this is a significant limitation that needs to be addressed in future rapid ethnographies, as one of the central components of ethnographic research is the researcher's critical account of their "self-location" (gender, class, ethnicity, etc.) (49), interests, pre-assumptions and life experiences, and how these shape their relationships with study participants and the research process itself. More reflexive approaches within rapid ethnographies would allow us to examine 'what we know' in relation to 'how we know it' (50), facilitating a more critical interpretation of the data and highlighting areas of methodological improvement.

The studies covered a wide range of diseases, healthcare contexts and populations, pointing to the flexibility of rapid ethnographies in their capacity to study a plurality of healthcare issues and settings. Even though some of the seminal work on rapid ethnographies has established specific timeframes for the distinction between ethnographies and rapid ethnographies (i.e. Handwerker (51) draws the line at 90 days), the studies in our review were less clear and in some cases did not report the length of the study. A recent review of rapid

qualitative research in complex health emergencies pointed to similar issues regarding missing information on the duration of the research (52), where the authors stressed the need for better descriptions of research designs and more accurate reporting of study timeframes (52). We believe reporting must improve to further develop rapid ethnographic methods.

The ethnographies included in our review drew from multiple sources of data, in some cases combining quantitative and qualitative data. Findings from the rapid ethnographies were also used in combination with findings from other research streams, mainly surveys. Several of the reviewed articles highlighted that the sampling strategies used in the studies could represent a limitation. Indeed, the literature on rapid research has highlighted that time constraints in the field can limit sampling to those participants who are more accessible or willing to take part in the study and do not allow the researchers to seek alternative or conflicting views (4,13). Most of the reviewed articles, however, provided clear justifications for the sampling of sites and participants, and their sampling strategies were informed by prior research in the area (carried out by members of the team or local collaborators) and the search for some degree of representativeness (capturing facilities with different types of services or degree of service utilization, for instance). As Beebe (53) has argued, sampling in rapid research can still capture a wide range of views through the careful selection of participants (i.e. key informants with expertise or knowledge of a particular subject and ‘troublemakers’ known for dissenting views who can be used to cross-check information). Handwerker (51) has also indicated that variation can be captured by using sampling frames based on criteria relevant to the study.

Data analysis methods were poorly described or not even mentioned. Exceptions were the articles by Murray et al. (39) and Harte et al.(46), which presented detailed descriptions of coding processes. In most articles, it was not clear if analysis was carried out using ‘traditional’

techniques or if rapid approaches were also used to analyse and interpret the data (2,53-55).

Could analysis approaches used in rapid evaluations and appraisals be applied to data collected through rapid ethnographies?

Another important finding of the review was that none of the authors discussed delays produced by ethical governance processes. Delays produced by ethical approvals have been widely discussed in the literature (56,57), so we were surprised to see that this issue did not come up in any of the reviewed articles, even when some of the study timeframes were short. This could be due to lack of reporting, but it does flag a potential area of future exploration to determine if ethical review committees are becoming more responsive to the time-sensitive requirements of rapid research (58).

We found variation in the terminology used to describe rapid ethnographies and overlap in definitions. We did not seek to establish a distinction between ‘appropriate’ or ‘inappropriate’ uses of the term ‘ethnography’, as there are currently dozens of definitions of ethnography and a lack of validated criteria for defining this approach. Instead, we focused on the terms as defined by the authors of the articles and developed a typology in the attempt to obtain greater conceptual clarity and highlight the diversity of research designs using the same label. We developed a working definition of rapid ethnographies, which draws from our typology as well as the limitations of current rapid ethnographies we identified in this review (Box 1).

Box 1. Proposed characteristics of rapid ethnographies based on review findings
1. The research is carried out over a short, compressed or intensive period of time
2. The research captures relevant social, cultural and behavioral information and focuses on human experiences and practices
3. The research engages with anthropological and other social science theories and promotes reflexivity
4. Data are collected from multiple sources and triangulated during analysis
5. More than one field researcher is used to save time and cross-check data

6. Research designs and the steps involved in the implementation of the study are reported clearly in publications and other forms of dissemination

Study findings were used to inform the development of new healthcare interventions, make modifications in existing services, facilitate policy-making, and shape other strands of research in mixed-methods studies. Only a few articles included information on the strategies used to disseminate these findings. We consider this to be an area that merits further exploration as the creation of the ethnographic text is an important meaning-making exercise to interpret and present the data collected in the field. If the field is continuously written and rewritten (59), what does this mean for rapid ethnographies? Can the conceptual shift proposed by Pink and Morgan (12) for short-term ethnographies help us engage in ethnographic writing in shorter periods of time? Can the intensity of the fieldwork be coupled with an increase in the intensity of writing? These are questions we will need to address as we seek to make rapid ethnographies useful for healthcare delivery, without losing sight of their capacity for capturing the complexities, richness and nuances of everyday life.

The findings of this review should be interpreted with its limitations in mind. The literature search for academic articles was carried out in April 2017, so articles published after this date were not included. Furthermore, although we employed multiple broad search terms, it is possible that we missed articles that did not use these terms. By limiting our inclusion criteria to studies that self-identified as rapid ethnographies, we might have missed articles that used other terms to describe rapid ethnographic research that we are not aware of. We did not include grey literature, thus potentially excluding an important number of rapid ethnographic studies that have not been published in academic journals. The tool we used to assess the quality of the studies, the MMAT, also has limitations and these have been discussed elsewhere (60-62).

Finally, our own notions of ethnographic and rapid research could have influenced our analysis of the articles. We believe that rapid research, if carried out rigorously, can yield valuable and insightful findings.

CONCLUSIONS

Our review highlighted the contributions rapid ethnographies can make to inform improvements in healthcare delivery. However, future rapid ethnographic research needs to develop more robust processes for the reporting of study designs and findings and place greater emphasis on reflexivity. Attention should be paid to the quality of rapid ethnographic studies in order to avoid the use of ‘rapid research’ labels to justify poorly conducted studies. Another area that merits attention is the writing of rapid ethnographic findings and the exploration of ways in which the results of studies can be disseminated without losing the richness and insight afforded by ethnographic approaches. The terminology we use to describe rapid ethnographic research should also be scrutinized as overlaps in definitions might create confusion regarding the study aims and characteristics. An important area of future research will be to expand the rapid ethnography typology we have presented in this article and further develop our working definition of rapid ethnographies.

FUNDING

CVP was in part supported by the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care (CLAHRC) North Thames at Bart's Health NHS Trust. The views expressed are those of the author and not necessarily those of the NHS, the NIHR or the Department of Health.

CONTRIBUTORSHIP STATEMENT

CVP conceived the idea for the paper. CVP and BVP worked on the review. CVP led on drafting the paper. Both authors contributed substantially to writing the paper and all reviewed and approved the final draft.

REFERENCES

- (1) Scrimshaw S, Hurtado E. Anthropological involvement on the Central American diarrheal disease control project. *Social Science and Medicine* 1988;27(1):97-105.
- (2) Burgess-Allen J, Owen-Smith V. Using mind mapping techniques for rapid qualitative data analysis in public participation processes. *Health Expectations* 2010;13:406-415.
- (3) Manderson L, Aaby P. An epidemic in the field? Rapid assessment procedures and health research. *Social Science and Medicine* 1992;35(7):839-850.
- (4) Manderson L, Aaby P. Can rapid anthropological procedures be applied to tropical diseases? *Health Policy and Planning* 1992;7(1):46-55.
- (5) McNall M, Welch V, Ruh K, Mildner C, Soto T. The use of rapid-feedback evaluation methods to improve the retention rates of an HIV/AIDS healthcare intervention. *Evaluation and Program Planning* 2004;27:287-294.
- (6) McNall M, Foster-Fishman P. Methods of rapid evaluation, assessment, and appraisal. *American Journal of Evaluation* 2007;28(2):151-168.
- (7) Shrank W. The Center for Medicare and Medicaid Innovation's blueprint for rapid-cycle evaluation of new care and payment models. *Health Affairs* 2013;32(4):807-812.
- (8) Mullaney T, Pettersson H, Nyholm T, Stolterman E. Thinking beyond the cure: A case for human-centered design in cancer care. *International Journal of Design* 2012 Dec 2012;6(3):n/a.
- (9) Ackerman SL, Sarkar U, Tieu L, Handley MA, Schillinger D, Hahn K, et al. Meaningful use in the safety net: a rapid ethnography of patient portal implementation at five community health centers in California. *J Am Med Inform Assoc* 2017 Mar 15.
- (10) Bentley M, Peltó G, Straus W, Schumann D, Adegbola C, de la Pena E, et al. Rapid ethnographic assessment: Applications in diarrhea management program. *Social Science and Medicine* 1988;27(1):107-116.
- (11) Saleem JJ, Plew WR, Speir RC, Herout J, Wilck NR, Ryan DM, et al. Understanding barriers and facilitators to the use of Clinical Information Systems for intensive care units and Anesthesia Record Keeping: A rapid ethnography. *Int J Med Inform* 2015 Jul;84(7):500-511.
- (12) Pink S, Morgan J. Short-term ethnography: Intense routes to knowing. *Symbolic Interaction* 2013;36(3):351-361.
- (13) Utarini A, Winkvist A, Peltó G. Appraising studies in health using rapid assessment procedures (RAP): Eleven critical criteria. *Human Organization* 2001;60(4):390-400.

- (14) Harris K, Jerome N, Fawcett S. Rapid assessment procedures: A review and critique. *Human Organization* 1997;56(3):375-378.
- (15) Knoblauch H. Focused ethnography. *Forum: Qualitative Social Research* 2005;6(3).
- (16) Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *BMJ* 2009;339:332-336.
- (17) Gough D, Thomas J, Oliver S. Clarifying differences between review designs and methods. *Systematic Reviews* 2012;1:28-37.
- (18) Sandelowski M, Voils C, Leeman J, Crandell J. Mapping the mixed methods–mixed research synthesis terrain. *Journal of Mixed Methods Research* 2012;6(4):317-331.
- (19) Robinson KA, Saldanha I, McKoy N. Development of a framework to identify research gaps from systematic reviews. *J Clin Epidemiol* 2011;64(12):1325-1330.
- (20) Gale N, Health G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology* 2013;13:117.
- (21) Pluye P, Bartlett G, Macaulay AC, Salsberg J, Jagosh J, Seller R. Testing the reliability and efficiency of the pilot Mixed Methods Appraisal Tool (MMAT) for systematic mixed studies review. *Int J Nurs Stud* 2012;49(1):47-53.
- (22) Pluye P, Hong QN. Combining the power of stories and the power of numbers: Mixed methods research and mixed studies reviews. *Ann Rev Pub Health* 2014;35(1):29-45.
- (23) Landis JR, Koch GG. The measurement of observer agreement for categorical data. *Biometrics* 1977;33(1):159.
- (24) Chesluk BJ, Holmboe ES. How Teams work-or don't-in primary care: A field study on internal medicine practices. *Health Aff* 2010 May 2010;29(5):874-9.
- (25) Jayawardena A, Wijayasinghe SR, Tennakoon D, Cook T, Morcuende JA. Early effects of a 'train the trainer' approach to Ponseti method dissemination: a case study of Sri Lanka. *Iowa Orthop J* 2013;33:153-160.
- (26) McElroy T, Konde-Lule J, Neema S, Gitta S, Uganda Sustainable Clubfoot Care. Understanding the barriers to clubfoot treatment adherence in Uganda: a rapid ethnographic study. *Disabil Rehabil* 2007 Jun 15-30;29(11-12):845-855.
- (27) Culhane-pera KA, Sriphetcharawat S, Thawsirichuchai R, Yangyuenkun W, Kunstadter P. Afraid of delivering at the hospital or afraid of delivering at home: A qualitative study of Thai Hmong families' decision-making about maternity services. *Matern Child Health J* 2015 Nov 2015;19(11):2384-2392.

- (28) Choy I, Kitto S, Adu-aryee N, Okrainec A. Barriers to the uptake of laparoscopic surgery in a lower-middle-income country. *Surg Endosc* 2013 Nov 2013;27(11):4009-15.
- (29) Schwitters A, Lederer P, Zilversmit L, Gudo PS, Ramiro I, Cumba L, et al. Barriers to health care in rural Mozambique: a rapid ethnographic assessment of planned mobile health clinics for ART. *Glob Health Sci Pract* 2015 Mar 5;3(1):109-116.
- (30) Hussain RS, McGarvey ST, Fruzzetti LM. Partition and poliomyelitis: An investigation of the polio disparity affecting Muslims during India's Eradication Program. *PLoS One* 2015 Mar 2015;10(3):n/a.
- (31) Chesluk B, Bernabeo E, Reddy S, Lynn L, Hess B, Odhner T, et al. How hospitalists work to pull healthcare teams together. *Journal of Health Organization and Management* 2015;29(7):933-947.
- (32) Mason B, Epiphaniou E, Nanton V, Donaldson A, Shipman C, Daveson BA, et al. Coordination of care for individuals with advanced progressive conditions: a multi-site ethnographic and serial interview study. *Br J Gen Pract* 2013 Aug;63(613):e580-8.
- (33) Coreil J, Augustin A, Holt E, Halsey NA. Use of ethnographic research for instrument development in a case-control study of immunization use in Haiti. *Int J Epidemiol* 1989;18(4 Suppl 2):S33-7.
- (34) Agyepong IA, Manderson L. The diagnosis and management of fever at household level in the Greater Accra Region, Ghana. *Acta Trop* 1994 Dec;58(3-4):317-330.
- (35) Shaw B, Amouzou A, Miller NP, Tafesse M, Bryce J, Surkan PJ. Access to integrated community case management of childhood illnesses services in rural Ethiopia: a qualitative study of the perspectives and experiences of caregivers. *Health Policy Plan* 2016 Jun;31(5):656-666.
- (36) Scott K, McMahon S, Yumkella F, Diaz T, George A. Navigating multiple options and social relationships in plural health systems: a qualitative study exploring healthcare seeking for sick children in Sierra Leone. *Health Policy Plan* 2014 May;29(3):292-301.
- (37) Hundt GL, Stuttaford M, Ngoma B, SASPI Team. The social diagnostics of stroke-like symptoms: healers, doctors and prophets in Agincourt, Limpopo Province, South Africa. *J Biosoc Sci* 2004 Jul;36(4):433-443.
- (38) Goepp JG, Meykler S, Mooney NE, Lyon C, Raso R, Julliard K. Provider insights about palliative care barriers and facilitators: results of a rapid ethnographic assessment. *Am J Hosp Palliat Care* 2008 Aug-Sep;25(4):309-314.
- (39) Murray JK, DiStefano AS, Yang JS, Wood MM. Displacement and HIV: Factors Influencing Antiretroviral Therapy Use by Ethnic Shan Migrants in Northern Thailand. *J Assoc Nurses AIDS Care* 2016 Sep-Oct;27(5):709-721.

- (40) Needle RH, Trotter RT,II, Singer M, Bates C, et al. Rapid assessment of the HIV/AIDS crisis in racial and ethnic minority communities: An approach for timely community interventions. *Am J Public Health* 2003 Jun 2003;93(6):970-9.
- (41) Goepp J, Chin NP, Malia T, Poordabbagh A. Planning emergency medical services for children in Bolivia: Part 2-results of a rapid assessment procedure. *Pediatr Emerg Care* 2004 Oct;20(10):664-670.
- (42) Ash JS, Sittig DF, Dykstra R, Wright A, McMullen C, Richardson J, et al. Identifying best practices for clinical decision support and knowledge management in the field. *Stud Health Technol Inform* 2010;160(Pt 2):806-810.
- (43) Wright A, Sittig DF, Ash JS, Erickson JL, Hickman TT, Paterno M, et al. Lessons learned from implementing service-oriented clinical decision support at four sites: A qualitative study. *Int J Med Inform* 2015 Nov;84(11):901-911.
- (44) Ash JS, Sittig DF, Guappone KP, Dykstra RH, Richardson J, Wright A, et al. Recommended practices for computerized clinical decision support and knowledge management in community settings: a qualitative study. *BMC Med Inform Decis Mak* 2012 Feb 14;12:6-6947-12-6.
- (45) Patmon FL, Gee PM, Rylee TL, Readdy NL. Using Interactive patient engagement technology in clinical practice: A qualitative assessment of nurses' perceptions. *J Med Internet Res* 2016 Nov 11;18(11):e298.
- (46) Harte JD, Sheehan A, Stewart SC, Foureur M. Childbirth Supporters' Experiences in a Built Hospital Birth Environment. *HERD : Health Environments Research & Design Journal* 2016 Apr 2016;9(3):135-161.
- (47) Shaw B, Amouzou A, Miller NP, Tafesse M, Bryce J, Surkan PJ. Access to integrated community case management of childhood illnesses services in rural Ethiopia: a qualitative study of the perspectives and experiences of caregivers. *Health Policy Plann* 2016 06;31(5):656-666.
- (48) Murray JK, DiStefano, Anthony S, Yang, Joshua S, Wood MM. Displacement and HIV: factors influencing antiretroviral therapy use by ethnic Shan migrants in northern Thailand. *The Journal of the Association of Nurses in AIDS Care* 2016 Sep-Oct 2016;27(5):709.
- (49) Pillow W. Confession, catharsis, or cure? Rethinking the uses of reflexivity as methodological power in qualitative research. *Qualitative Studies in Education* 2003;16(2):175-196.
- (50) Visweswaran K. *Fictions of feminist ethnography*. Minneapolis, MN: University of Minnesota Press; 1994.
- (51) Handwerker P. *Quick Ethnography: A Guide to Rapid Multi-Method Research*. Lanham, MD: AltaMira Press; 2001.

- (52) Johnson G, Vindrola-Padros C. Rapid qualitative research methods during complex health emergencies: A systematic review of the literature. *Social Science and Medicine* 189: 63-75.
- (53) Beebe J. *Rapid Qualitative Inquiry*. Second ed. London: Rowman and Littlefield; 2014.
- (54) Miles M, Huberman M, Saldana J. *Qualitative Data Analysis: A Methods Sourcebook*. Thousand Oaks: SAGE; 2014.
- (55) Neal J, Neal Z, VanDyke E, Kornbluh M. Expediting the analysis of qualitative data in evaluation: a procedure for the Rapid Identification of Themes From Audio Recordings (RITA). *American Journal of Evaluation* 2015;36(1):118-132.
- (56) Green L, Lowery J, Kowalski C, Wyszewianski L. Impact of Institutional Review Board practice variation on observational health services research. *HSR: Health Services Research* 2006;41(1):215-230.
- (57) Silberman G, Kahn K. Burdens of research imposed by Institutional Review Boards: The state of the evidence and its implications for regulatory reform. *The Milbank Quarterly* 2011;89(4):599-627.
- (58) McDonach E, Barbour R, Williams B. Reflections on applying for NHS ethical approval and governance in a climate of rapid change: Prioritizing process over principles. *International Journal of Social Research Methodology* 2009;12(3):227-241.
- (59) Latimer J. Creating text, analysing text: A note on ethnography, writing and power. *Working Paper Series* 2008;106.
- (60) Crowe M, Sheppard L. A review of critical appraisal tools show they lack rigor: Alternative tool structure is proposed. *J Clin Epidemiol* 2011;64(1):79-89.
- (61) O'Cathain A, Murphy E, Nicholl J. The quality of mixed methods studies in health services research. *J Health Serv Res Policy* 2008;13(2):92-98.
- (62) O'Cathain A. Assessing the quality of mixed methods research: Towards a comprehensive framework. In: Tashakkori A, Teddie C, editors. *Handbook of Mixed Methods in Social and Behavioural Research* Thousand Oaks: SAGE; 2010. p. 531-555.

