

Birth narratives to better understand quality of care: development and implementation of the BOND methodology

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Abstract

Background

Quality of care assessments in maternal and newborn health have traditionally relied on quantitative tools that capture structural inputs and clinical processes but fall short in revealing the lived realities of childbirth care. To address this gap, we developed and implemented a qualitative birth observation tool as part of formative research for Service Delivery Redesign (SDR) in Chad, the Democratic Republic of Congo, and Pakistan.

Methods

Through six steps we describe the development and implementation of the Birth Observation in Narrative Design (BOND) methodology. Tool development was grounded in established quality frameworks, including the Donabedian model and WHO quality of care standards for maternal and newborn health, covering domains of effective, safe, people-centred, timely, equitable, integrated, and efficient care across the full intrapartum and immediate postpartum period. Extensive training of observers included specific attention to ethnographic techniques, minimise the impact of the observer on care delivery, building rapport, creating a culture, trust, confidentiality, and respect. Observational notes were transformed into birth narratives, thematically analysed and triangulated with quantitative facility assessment and community data to inform national SDR processes.

Results

Seventy-six observations were conducted across multiple facilities in the three countries. Rather than functioning as a checklist, the tool guided trained observers in producing rich chronological narratives capturing not only what happened, but how and why, including contextual factors such as workforce constraints, communication dynamics, and systemic barriers. Research teams highlighted the tool's added value in surfacing organizational dynamics, rights gaps, and contextual drivers of care quality that quantitative audits cannot capture. Methodological challenges included the resource-intensive nature of implementation, difficulty identifying observers with the required skills, and navigating ethical complexities and positionality in vulnerable care settings.

Conclusion

The BOND methodology offers a structured approach to capturing narrative accounts of childbirth care through direct observation. By revealing how and why care unfolds, BOND complements structured indicators in understanding quality of care, but requires considerate implementation, training, supervision and interpretation. Integrating narrative observation within learning and SDR approaches can strengthen efforts to improve maternity care across diverse health systems.

BACKGROUND

Quality of care is widely recognized as a crucial determinant in maternal and newborn health [1, 2]. Yet the way we understand and assess quality is constantly evolving. Quality assessments are conceptually rooted in the Donabedian and descendent models, emphasizing the need for appropriate structures and processes of care to achieve positive outcomes [2, 3]. Despite the importance of both, quality of care assessments have traditionally prioritized structure over process, with a strong focus on input measures, availability of physical resources and service readiness, captured through routine health information systems and facility audit checklists [4]. To better understand patient experiences and processes of care, including respectful or person-centred maternity care, birth observations have been increasingly used, often in combination with other quality assessment tools, such as patient exit-interviews, community surveys, and healthcare provider interviews [5–7]

Current birth observation tools are predominantly quantitative in nature, offering comparability and a mechanistic explanation of how clinical resources and actions combine to produce a certain quality of care. However, these tools can only partially characterize labouring people's lived realities and cannot uncover new insights beyond what is expected: the dynamics in which decisions are made; the appropriateness of interventions provided (or not); full comprehension of what is happening or being communicated; and the contextual factors that influence how care is delivered. These aspects are best explored through qualitative narrative description, which allows events to be understood in relation to human experience, interactions and purpose [8, 9]. While narrative methods have a long history in medical practice through clinical case histories, they have been increasingly applied to quality and health systems improvement [8, 10].

Narrative methods in healthcare emerged in the 1980s in recognition of the need for a deeper understanding of patient experience in both medical and sociological study [11]. In health quality improvement research, narrative methods can take the form of narrative interviews, naturalistic story gathering and organizational case studies, using observations as part of the data collected, and collective sense-making [8, 9]. Given that stories can illuminate the meaning ascribed to an individuals' experience as well as the tacit knowledge implicit to an organizational culture, they have been particularly used to study end-of-life care, mental health, and social, public and organizational healthcare [12]. Narratives of women's labour and delivery experience have been primarily used in national public health studies and gathered through interviewing [13, 14]. To the authors' knowledge, the potential of situating birth observation within narrative methods, to gain insight into clinical realities and make sense of context and interaction, has not been explored in international health services research.

This paper describes the development and implementation of Birth Observations in Narrative Design (BOND) methodology as part of formative research into the redesign of maternal and newborn health services in Chad, DRC and Pakistan. This multi-country study was itself part of an ongoing 'Service Delivery Redesign' (SDR) agenda, spawned by the Lancet Global Health Commission on High Quality Health Systems in the SDG Era [2]. SDR is a process of reorganizing care pathways within the health system, to deliver services at the appropriate level and achieve the highest quality of care [2]. By placing users' needs, experiences, and constraints at the centre of decision-making, SDR rethinks how and where

services are delivered [15]. The qualitative birth observations in our research were intended to collect rich, meaningful narratives that centre human experiences and reveal how care unfolds, complementing quantitative facility checklists, provider surveys, client exit interviews and community dialogues. We describe both the method’s theoretical grounding and practical application, providing a systematic approach for a guided and theory-informed qualitative tool development and insights in the complexity and pitfalls of its implementation. We propose that making healthcare patient centred requires patient-centred methods, and that BOND expands the basket of tools available for international research and quality improvement initiatives offering a patient-centred and transferable method to understand how intrapartum care was delivered. With its narrative output, BOND can demonstrate how quality unfolds and shapes the lived realities of patients and their care providers.

METHODOLOGY

Through six steps (Figure 1), we describe the development and implementation of the BOND methodology.

1. Development of the qualitative birth observation tool

The development of the tool within this formative research for SDR stemmed from the need to collect rich, meaningful qualitative narratives on facility births, that could support human-centred dialogues and approaches for SDR. The BOND tool was intended to guide observers in systematic observation across quality domains at each unique observation. The tool was first drafted by two researchers (IdV, PP) responsible for methods development in the multi-country study, reviewed by WB/GFF (SRDW, SM) and further reviewed and contextualized by lead qualitative experts in each country (NR, PWB, RM).

Identification of domains and items

The relevant conceptual domains and items for the tool’s development were identified through a review of authoritative white and grey literature on quality of care (Table 1).

Table 1 Conceptual foundations of BOND

Principles	Domains to be covered in the tool
Stages of labour [16,17]	Patient assessment, first stage of labour, second stage of labour, third stage of labour, routine newborn care, neonatal resuscitation, immediate post-partum period mother (6 hours)
WHO Quality of care domains [18]	Effective, Safe, People-centred, Timely, Equitable, Integrated, Efficient
WHO Quality of care standards for MNH [19]	Evidence based practices for routine care and management of complications; actionable information systems, functional referral systems; effective communication; respect and preservation of dignity; emotional support; competent, motivated human resources; essential physical resources
Donabedian model [3]	Structure, process and outcomes

The period of interest for observation was set, in line with the WHO guidelines on intrapartum and postnatal care [16,17], from patient assessment throughout the birth pathway until six hours post-partum. The quality-of-care domains to be assessed included effective, safe, people-centred, timely, equitable, integrated and efficient care. For each of these domains, we drafted issues for attention, aligned with WHO quality of care standards for maternal and newborn health [19]. These issues guided observers' notes and reflections, ensuring attention for the provision of care (in relation to evidence based practices, medical records and functional referral) as well as the experiences of care (effective communication, respect, dignity and emotional support). Grounded in the foundational principles for quality by Donabedian, the tool facilitated attention to structure (facility infrastructure and available supplies), process (appropriate use and interactions) and outcomes (birth outcomes).

Ethical approval and consent procedures

Ethical approval for the multi-country, formative research study of which the qualitative birth observations formed part was obtained from the Ethical Review Committee of Aga Khan University in Pakistan (2023-8931-26909), Comité National de Bioéthique du Tchad (015/MESRS/SE/SG/CNBT/SG/2024) and Medical Ethical committee of the Université Catholique de Bukavu in DRC (UCB/CIES/NC/012/2023). Written informed consent was obtained from both the health professional and the woman in labour being observed.

2. Training of observers

Applying a train-the-trainer approach, lead researchers in each country were trained on the use of the tool and subsequently trained field observers. Due to its qualitative nature as well as the need to understand the labour process and care, we assumed that the tool should be administered by trained medical professionals with a background in both emergency obstetric care and qualitative research. Two to four observers were trained per country, depending on the geographic distribution of sampled districts. In the training, specific attention was given to minimising the impact of the observer on care delivery, building

rapport with the hospital and ward management, creating a culture of trust, confidentiality, and respect. As was the importance of approaching observation not as policing but as documentary. The observers were trained in applying the tool using ethnographic techniques and reflecting on their positionality as they describe their interpretations, avoiding judgements. The training included pilot field testing so observers could practice systematic observation and note taking, collectively discuss their conceptual understanding and harmonize their observation approach.

3. Implementation of the tool

The tool was implemented in two districts in Sindh Pakistan and four in Chad and DRC. In consultation with (sub)national health authorities involved in SDR, comprehensive and basic emergency obstetric and newborn care (CEmONC; BEmONC) facilities were purposively selected (2-4 per district) to include facilities with both high and low birth volumes. Within the sampled facilities, provider consent was secured in advance of patient admission or assignment, and women's consent was as much as possible sought upon admission or in early labour. Observers spent 3-5 days and selected births to observe based on maximum variation sampling, with the aim of saturation. Spending multiple days in each facility increased the likelihood of capturing a mix of physiological and complicated births, emergency caesarean sections, and neonatal resuscitation. During labour and birth, observers made structured notes using the BOND tool, ensuring to address all quality-of-care domains.

4. Development of birth narratives

Following each observation, notes were expanded into a comprehensive birth narrative—a chronological story of the phases of labour, reflecting on the seven domains of quality. Lead researchers from the national research team (for each narrative) and from the international team (spot checks) reviewed the narratives for completeness and quality and requested adaptations, clarifications or deeper explanations where needed. The revised narratives were used for analysis.

5. Analysis

For each country, the qualitative narratives were coded thematically, using a deductive coding grid based on the quality-of-care domains. Coded narratives were subsequently triangulated with quantitative facility assessment data (facility checklists, provider surveys and patient-exit interviews) and qualitative data from community focus groups into national research reports and a 'service blueprint' that could guide potential new service models [20].

6. Consultation, validation and shared experiences with users of tools

Following the completion of the formative research study, the research teams reflected on tool implementation, training considerations and perceived added value through an open-ended questionnaire (supplementary material 1) and consultative meetings.

RESULTS

The tool that was developed (supplementary material 2) provided a systematic guide—not an exhaustive checklist—for observers, ensuring structured attention to all quality domains throughout the labour and care pathway while remaining open to documenting anything observed, including contextual factors such as staff workload, equipment unavailability, or care disruptions. The overall SDR study field manual described processes and quality assurance mechanisms for implementation (supplementary material 3). A quality assurance guide for the narratives was developed during the process (supplementary material 4), responding to a need to further support the observers in ensuring the completeness of narratives: describing both what happened (and when, where, with whom), and making sense of the why and how; capturing the influence of workforce constraints, missing protocols, equipment issues, communication breakdowns, or other factors.

Between October 2023 and August 2024, a total of 76 qualitative birth observations were conducted in Chad (n = 11), DRC (n = 34), and Pakistan (n = 31). A cross-country analysis of narratives, demonstrated that narratives capture how technically appropriate care is entangled with harmful, unevidenced routines; how monitoring may mean documentation on paper, but lacks real-time responsiveness; how rights gaps manifest in care provision; and how resource and workforce constraints shape care quality [20].

Consultation process with the research and implementation teams focused on tool content and feasibility, training needs, ethical issues & positionality and perceived added value of the tool, further described.

Tool content and feasibility

In the context of SDR the tool was felt to be comprehensive in covering clinical, organizational, relational and rights dimensions and relevant for capturing rich contextual descriptions of emergency obstetric wards. The narratives could capture how care practices, provider–patient interactions and systemic constraints intersect to shape outcomes. Through triangulation with other methods, it proved particularly valuable in articulating the difference between protocol compliance and the lived experience of quality, as well as breaks in continuity and timeliness of care. While the main domains of quality were felt to be adequately addressed, suggested improvements included more structured attention for contextual factors such as staff workload, infrastructure, communication systems, response times, and interruptions. In addition, the tool could better prompt for disrespectful or abusive practices (e.g. slaps, insults and deliberate ignoring) and harmful or inappropriate practices (e.g. fundal pressure, episiotomy without indication, fluid restriction, routine aspiration of the newborn). In terms of feasibility, the tool required sustained observation, strong clinical expertise in emergency obstetric and neonatal care, and methodological rigor to ensure objective documentation with qualitative depth. Its effective application therefore depends heavily on the observer's profile.

Training needs

Observers with the required dual profile, including knowledge of emergency obstetric care and qualitative research skills, were hard to find, but contributed to the qualitative depth of the narratives. The training required significant time: despite their profile, observers needed solid reorientation of EmONC and WHO standards alongside ethnography and objective, non-judgmental description. The training also discussed how not to disrupt the care environment or process and be a “fly on the wall”. Certain domains, such as “Equitable” and “Efficient” care, required careful interpretation and collective discussion to harmonize understanding across observers. Research teams suggested the training could be strengthened with more practical simulations based on all the tool's steps, more structured writing exercises on translating observations to narratives, and supervision during the initial field observations.

Ethical issues and positionality

Observation required careful ethical navigation given the vulnerability of women in labour and the high-pressure environment of delivery rooms, requiring the need to find appropriate time and space to acquire fully informed voluntary consent. Respectfully engaging with families, taking them along in the purpose of the study and procedures, was found to be important in the process of soliciting consent. In Chad, consent from the husband was also essential. While women generally accepted the observation, staff exhibited more reluctance, emphasizing the need for raising awareness among care teams before conducting the observations, obtaining formal authorizations from health officials, and ongoing dialogue with the teams to create buy-in. Being local professionals who spoke the same language as women and staff facilitated acceptance of and trust towards observers; however, their affiliation with an academic institution sometimes led to perceptions of being performance assessors, potentially influencing provider behaviour. While impossible to eliminate observer effects, observers tried to mitigate these by maintaining a discreet, strictly non-interventionist approach, clarifying their role as aiming to improve systems rather than assess individuals, and respecting existing hierarchies. The observation teams reported not having to make direct interventions during observation sessions, however some narratives revealed that they provided corrective advice after certain care procedures.

Perceived added value of the tool

The tool was considered of significant added value by research teams working with national authorities on the redesign of maternal and newborn health services. The tool provided insights that quantitative audits cannot capture—lived experience, subtle organizational dynamics, and the contextual drivers of care quality. Deeper triangulation with clinical documentation—including systematic verification of partogram use, consistency between observed practices and facility registers, accurate recording of timing (e.g., decision-to-intervention intervals), documentation of neonatal resuscitation and maternal and newborn outcomes - could provide even richer information on care quality.

DISCUSSION

This paper describes the development of a qualitative method for birth observation to capture the lived realities of childbirth care through narrative accounts. BOND is grounded in the premise that quality of care is not only a matter of adherence to standards, but also of situated practice shaped by context, constraints, and interaction. The reflections from the tool's first implementation across three countries highlighted its strengths and added value, complementing other quality assessment methods, as well as its limitations and challenges in implementation. The feasibility of its implementation is context-dependent, especially in complex and volatile settings, and facility managers may exhibit reluctance to receive observers. While observational narratives have the ability of providing rich information on care dynamics, BOND is time and resource-intensive, requires researchers with a specific dual profile and demands comprehensive training. The method requires rigorous supervision and quality assurance to ensure appropriate implementation, application of concepts and minimal inter-observer variation in what is being looked and narrated for. While the tool is structured to facilitate documentation along consistent domains, the style of narratives may vary among observers and teams. Due to the qualitative nature of the method this does not have to be problematic and can also enrich the story-telling value, as long as reflexivity and positionality are considered. Finally, observer effects can be mitigated through measures such as relationship building with facility staff, transparent communication about the observer's role, and training on reflexivity and positionality. Emphasizing that the observer's role is not evaluative but descriptive, is essential for building trust and minimizing disruption to routine care.

Looking forward, the central challenge is how narratives of childbirth can be meaningfully centred in quality improvement efforts while feasible for researchers or quality improvement teams. In its current form, BOND is particularly suited for targeted quality diagnostics and research rather than routine monitoring. The method's application in service design and redesign (SDR) initiatives was positively evaluated by research teams, and it could be particularly valuable in learning health system approaches that encourage reflection and collective learning among providers and managers [21–23]. Birth narratives generated through BOND can also be used in quality improvement processes, supportive supervision, or peer reflection sessions to stimulate discussion on how different dimensions of quality-of-care manifest in daily practice. Learning accompanied by leadership and a supportive organizational culture will create stronger buy-in for quality improvement and create a sense of individual ownership for action [24]. By making the multiple dimensions of quality visible through concrete care processes, the method can help translate abstract quality standards into practical insights for improving maternity care.

CONCLUSION

The BOND methodology with qualitative birth narratives as an output, offers a structured approach to capture processes, interactions and contextual factors shaping quality in childbirth care. Implementation requires careful guidance in terms of resources, training, supervision, reflection and interpretation of findings. Integrating narrative observation within wider quality assessments can enhance comprehensive understanding of childbirth care and help to design and redesign context-specific maternity care initiatives across diverse health systems for improving maternal and child health outcomes.

Declarations

Ethics approval and consent to participate

Ethical approval was obtained from the Ethical Review Committee of Aga Khan University in Pakistan (2023-8931-26909), Comité National de Bioéthique du Tchad (015/MESRS/SE/SG/CNBT/SG/2024) and Medical Ethical committee of the Université Catholique de Bukavu in DRC (UCB/CIES/NC/012/2023).

Written informed consent was obtained from both the health professional and the woman in labour being observed.

Consent for publication

Not applicable

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

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Harry Coleman: Research Implementation, Validation, Writing Original Manuscript Draft. Narjis Rizvi: Research Implementation, Analysis, Validation, Manuscript review.

Pacifique Mwene-Batu: Research Implementation, Analysis, Validation, Manuscript review. Rolande Mindekem: Research Implementation, Analysis, Validation, Manuscript review.

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Heloise Widdig: Research Implementation, Analysis, Validation, Manuscript review.

Sanam Roder-DeWan: Conceptualization, Supervision, Resources, Validation, Manuscript review.

Supriya Madhavan: Conceptualization, Supervision, Resources, Validation, Manuscript review, Pierre Pratley: Conceptualization, Methodological Design, Research Implementation, Analysis, Validation, Writing Original Manuscript Review.

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Figures



Figure 1

Steps in the methodological development, implementation and validation of BOND.

Supplementary Files

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- [Supplementarymaterial1questionnaire.docx](#)
- [Supplementarymaterial2QualitativeBirthObservationtool.docx](#)
- [Supplementarymaterial3qualityassurancemechanismsfieldmanual.docx](#)
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