

# The quantification of midwifery research: Limiting midwifery knowledge

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## Abstract

As two academics researching in the area of maternal health, we are increasingly concerned with what we see as a positivist turn in midwifery research. In this paper, we examine this idea of the quantification of midwifery research, using as an example the current esteem given to the systematic literature review, and its creep into other methodologies. We argue that the current favor toward quantitative research and expertise in midwifery academia risks the future of midwifery research by the lack of equal development of qualitative experts, diluting qualitative research rigor within the profession, and limiting the kinds of questions asked. We identify the similarity between the current prominence of quantitative research and medical dominance in midwifery and maintain that it is of vital importance to the profession (research and practice) that the proper attention, contemplation, and merit are given to qualitative research methods.

## KEYWORDS

literature review, midwifery, qualitative research, quantitative research

As academics whose work is in the area of maternal health, we have grown increasingly concerned with the positivist turn in midwifery research. We can only offer observational evidence of this, for example, examining qualitative theses with (poorly conducted and ill-fitting) “systematic-styled” literature reviews, comments from colleagues about what kinds of research projects are publishable or fundable, criteria for systematic styling of literature reviews in master’s degree marking guides, reviewing incoherent qualitative manuscripts, by which we mean nonreflexive use of inappropriate language style (such as use of third person), or attempting to apply quantitative measures of rigor (eg, lack of bias, sample size, and generalizability). Our concern stems from the following premises—that the quantification of midwifery research:

1. Limits knowledge, including research direction, design, funding, and the form research projects then take; and
2. Risks reproducing patriarchal, colonizing and medically dominant systems of thought and knowledge creation, despite midwifery having human rights-based foundational principles that promote women’s autonomy and claiming to value other forms of knowledge.<sup>1,2</sup>

Medicine entered the university early—before anything we would call “scientific method,” well before asepsis, back when physicians were focused on translating historical medical knowledge into Latin.<sup>3</sup> Medicine was in the university long before what Foucault called “the birth of the clinic” in the early 1800s, the beginning of what we

now think of as a “teaching hospital,” offering clinically based education.<sup>4</sup>

Midwifery as a university-based field of study and research, on the contrary, is in its infancy, although with different histories and trajectories of training and education worldwide, and with much of early midwifery education subsumed first into medicine, then nursing. We also need to recognize and value much more the knowledge of traditional, Indigenous, and lay midwives. However, when we look at university-based midwifery research, many of the first professors of the modern discipline of midwifery are still living and working among us. Over the last few decades there has been an extraordinary amount of research by midwifery scholars that asks different questions, from the perspective of women and other birthing people, and of midwives. However, it seems to us that there is now a greater significance and authority placed on quantitative research. This can partly be explained by needing to produce research that is taken seriously by medicine and is certainly the route to attaining funding from medically-oriented research bodies. It is also a symptom of the more widespread problems within academia including increasing pressure to publish, which has trickled down to postgraduate research students, and can lead to a favoring of research with clear lines and discrete projects, rather than traditional exploratory theses, which may not be dissectable into publication-sized chunks. It is wrong, however, that there is not an equivalent growth, significance, and authority given within the profession to qualitative methodologies and paradigms, particularly given the claimed feminist nature of midwifery, and the importance of childbirth in the human experience. Although many midwives do conduct qualitative research projects, particularly in postgraduate research programs, there is less enthusiasm for, and status given to, continuing on with and building expertise in qualitative research. In addition, although midwives often identify as feminists because of the nature of their work with women's bodies, upholding autonomy and holding space for birth,<sup>5</sup> it has been argued that the profession of midwifery does not engage fully enough with feminism.<sup>6,7</sup> This is something we think can be, in part, remedied by this call to reprioritize the role of qualitative research in midwifery academia.

The importance of quantifiable research in maternity care is not under question. Quantifiable evidence by midwifery researchers has made groundbreaking advancements in knowledge, for example, demonstrating the importance of midwifery models of care<sup>8,9</sup> and place of birth<sup>10,11</sup> on improving outcomes for women and babies. The issue we are raising is the apparent incline toward quantifiable research within academia, to the exclusion of other forms of knowledge production, and the effect this has on robust qualitative research production.

Midwives were engaged in “research” long before it was understood as such. Techniques and substances were tried, evaluated, adjusted as more subtle variables became clear, and moved into practice or abandoned.<sup>12,13</sup> There is a long-standing tendency within the culture at large and within contemporary midwifery in particular to dismiss this as research, and instead attribute this hard-won, thoughtfully gained knowledge to “intuition.” When a neurosurgeon with many years of practice sees three patients with very similar charted attributes and says two should be okay but is concerned about the third, we recognize experience-based wisdom and knowledge. When a midwife does the same with three laboring women, the language of “intuition” gets evoked. It would be wiser and truer to call this “tacit knowledge”: when we know things but cannot always articulate precisely how we know.<sup>14</sup> Research on that tacit knowledge, how one knows, is what is truly needed.

One of us (BKR) is a sociologist, coming from the perspective of symbolic interactionism, the sociology of knowledge, and grounded theory. One could discuss these perspectives in great detail but suffice it to say that how people know things, and how knowledge is developed, constructed, and shared, is itself worthy of study, and has extraordinary power in our world. Rather than coming up with a hypothesis in a causal relationship and testing it, the researcher might do better to take an educated, thoughtful, analytic mind into the field and listen. Early sociological work in this vein brought us the concept of a “midwifery model” in contradistinction to a “medical model” of what birth itself is.<sup>15</sup> Listening to the midwives who had been trained in one system and worked in another, the idea of fundamental differences in the model of birth became clear. This kind of qualitative work, deep listening, and open-minded and open-ended research is precisely what is being undervalued.

For the other of us (EN), a midwifery academic, this is most clearly illustrated in the “systematization” of literature reviews. There is an apparent push, in midwifery academia, toward systematic-styled literature reviews, even for those reviews foregrounding a qualitative research project. Commonly now, midwifery postgraduate students and researchers are persuaded that a “systematic-styled review” is the only (authoritative) kind of literature review that can be accomplished (or published). Coming to midwifery research with a social/political science background, which has different academic practices, EN has watched this emphasis grown over the last decade with increasing dismay.

Systematic reviews are a form of primary quantitative research, where meta-analysis of randomized controlled trials aims to give a more robust account of the intervention in question because it can draw on a greater sample

size. Systematic reviews have been incredibly useful to maternity care research, particularly in the early days of the Cochrane database,<sup>16</sup> in identifying practices that were harmful to birthing women and eschewing practices based on clinician preference. The methodology of meta-synthesis (or meta-ethnography) attempts a similar aim: to provide a systematic qualitative “synthesis” of data about human experience, and so these also make use of a predetermined protocol and search strategy.

Preordained protocols and search strategies are fundamental to the systematic review and meta-analysis/meta-synthesis as a primary research methodology so that they can be replicated and/or verified by others. However, it is important to remember that replicability is a quantitative measure of rigor; invariably, primary qualitative research cannot be replicated in the same way. In qualitative research, it is important to show the “workings out” in terms of raw data, analytic transparency, reflexivity, and so on. But there is no expectation that, for example, one ethnographic study can be replicated by another ethnographer in the way that a laboratory experiment must be replicable. To some extent, this is because the researcher is an instrument of the research.<sup>17</sup> Thus, the more experienced the researcher, the keener their critical thinking skills and breadth of knowledge, the better the quality of the research.

Yet, it is increasingly common to see systematic-styled literature reviews with quasisystematic aspects, foregrounding what would otherwise be a (qualitative) narrative literature review. Not only is a structured and predetermined search strategy unnecessary for these kinds of reviews, but it is also completely incongruous with qualitative research rigor and methodology. Literature reviews for qualitative research projects may include historical, theoretical, or anthropological–sociological literature, which is chosen, read, and deliberated on by the student or researcher, using critical thinking, depth, and breadth of reading in their field, deep reflection, and attention to theoretical arguments. The criticality needed to produce high-quality qualitative research is not fostered by a quasisystematic literature review based on quantitative methodological principles.

Attempts to conduct qualitative research in a quantitatively rigorous way not only defies all logic but also significantly reduces the rigor of that research. It is important to note that the rigor of most qualitative research methods and findings is reliant on their relationship to the underpinning social theory and the ability to construct a critical argument. Here is yet another basis to our concerns about the quantitative turn in midwifery research, as the requisite knowledge and expertise of the social theories that accompany qualitative research are at risk of not being understood or developed. Embedding beginning social

theory courses into midwifery undergraduate programs (and certainly in postgraduate programs) may help to alleviate this.

We are not at all diminishing the importance, rigor, or use of quantitative and systematic methods, particularly when reviewing clinical or experimental research. However, for reasons inexplicable to us, the *idea* of the systematic-styled review as the only robust measure of reviewing literature has crept into midwifery academia. The extent of the creep now leaves little room for other ways of reviewing literature that might be more exploratory, or critical, or discursive, or transdisciplinary. The uncritical acceptance of the quantification of the literature review discounts the need for also having narrative, inquiring, critical, purposive, theoretical literature reviews, which have a different intent and a different process.

What is lost by conforming only to stepped, recipe-like, preordained literature review approaches, with their “robust and nonbiased” knowledge claims (the same claims of science over the centuries, while simultaneously asking research questions from a point of view of gendered, cultural, and economic dominance), is critical, theoretical, and intellectual rigor, in both research direction and execution. There is a danger therefore of reproducing the reductionism and dominance of medical and scientific discourse, which feminist theorists and midwifery scholars alike have painstakingly identified, dissected, and resisted. Crucially, midwifery needs good qualitative research. It needs skilled researchers who are willing to take chances, and dissertation supervisors who are competent to supervise students in rigorous qualitative study. Midwifery needs journal editors who are able to see past the “systematic-styled review” blindness, and professors who are experts in qualitative research and its accompanying social theory.

The risk of not valuing qualitative expertise, or of perceiving qualitative research as easy, or an adjunct to the more important quantitative data (especially now that policymakers and research bodies are interested in participant experience), is poorly conducted qualitative research design and analysis (see, eg, Coates & Catling's<sup>18</sup> discussion on this issue in the use of ethnography in maternity research). It is as risky to midwifery—to research, practice, and praxis—as understanding childbirth only in terms of measurable “outputs.”

The quantification of life has some use but can also approach absurdity, and it is toward the absurd that an uncritical acceptance of “quantification as rigorous” is leading us. What is surprising is that there appears to be little backlash to this turn from within the midwifery research community, and, perhaps more astounding, even less insight into how this stance is reminiscent of (or reproduces) medical and scientific dominance.<sup>19</sup> Audre

Lorde wrote: “For the master’s tools will never dismantle the master’s house. They may allow us temporarily to beat him at his own game, but they will never enable us to bring about genuine change.”<sup>20</sup>

In order to continue to bring about genuine change in maternal health and maternity care, as well as continuing attempts to systematically measure outcomes, we must recognize the patriarchal and colonial roots of knowledge production and dissemination, and critically engage with theories of antioppression, antiracism, and feminism that address decolonization, intersectionality, and reproductive justice,<sup>21,22</sup> which remain absent from much midwifery research design. We call for midwifery and maternity care researchers to hold space for qualitative expertise; for deep, slow, reflective, theoretical thinking; for exploring tacit and experiential knowledge; for tangential asides; for creativity; for meandering down various paths; for seeing what is possible; and for discussion of why these are important to midwifery research, just as we discuss how such things are important to midwifery practice.

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#### REFERENCES

- Davis-Floyd R. *Ways of Knowing about Birth: Mothers, Midwives, Medicine, and Birth Activism*. Waveland Press; 2018.
- Philosophy and Model of Midwifery Care. In. *Vol CD0005\_V201406\_EN*. International Confederation of Midwives; 2014.
- Towler J, Bramall J. *Midwives in History and Society*. Croon Helm; 1986.
- Foucault M. *The Birth of the Clinic [1963]*. Routledge; 2003.
- Rothman BK. *Recreating Motherhood: Ideology and Technology in a Patriarchal*. Norton; 1989.
- Hawke M. Subversive acts and everyday midwifery: feminism in content and context. *Women Birth*. 2021;34(1):e92-e96.
- Harkness M, Cheyne H. Myles textbooks for midwives 1953 and 2014, a feminist critical discourse analysis. *Midwifery*. 2019;76:1-7.
- Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwife-led continuity models versus other models of care for childbearing women. *Cochrane Database Syst Rev*. 2016;4:CD004667.
- Tracy SK, Welsh A, Hall B, et al. Caseload midwifery compared to standard or private obstetric care for first time mothers in a public teaching hospital in Australia: a cross sectional study of cost and birth outcomes. *BMC Pregnancy Childbirth*. 2014;14(1):46.
- Homer CSE, Cheah SL, Rossiter C, et al. Maternal and perinatal outcomes by planned place of birth in Australia 2000–2012: a linked population data study. *BMJ Open*. 2019;9(10):e029192.
- Brocklehurst P, Hardy P, Hollowell J, et al. Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study. *BMJ*. 2011;343(7840):d7400.
- Donnison J. *Midwives and Medical Men: A History of the Struggle for the Control of Childbirth*. Historical Publications; 1988.
- Willis E. *Medical Dominance*, 2nd ed. Allen and Unwin; 1989.
- Lynch M. At the margins of tacit knowledge. *Philos Sci*. 2013;17(3):55-73.
- Rothman BK. *In Labor: Women and Power in the Birthplace*. W.W Norton & Company; 1982.
- Chandler J, Cumpston M, Thomas J, Higgins J, Deeks J, Clarke M. Chapter I: Introduction. In: Higgins J, Thomas J, Chandler J, et al., eds. *Cochrane Handbook for Systematic Reviews of Interventions version 6.2 (updated February 2021)*. Cochrane; 2021. Available from [www.training.cochrane.org/handbook](http://www.training.cochrane.org/handbook).
- Crotty M. *The Foundations of Social Research: Meaning and perspective in the research process*. Allen and Unwin; 1998.
- Coates D, Catling C. The use of ethnography in maternity care. *Glob Qual Nurs Res*. 2021;8:23333936211028187.
- Rothman BK. *The Biomedical Empire: Lessons Learned from the COVID-19 Pandemic*. Stanford University Press; 2021.
- Lorde A. The master’s tools will never dismantle the master’s house. *Penguin*. 2018:16-21.
- Ross LJ. Reproductive justice as intersectional feminist activism. *Souls*. 2017;19(3):286-314. doi:10.1080/10999949.2017.1389634
- Davis D-A. Obstetric racism: The racial politics of pregnancy, labor, and birthing. *Medical Anthropology*. 2019;38(7):560-573. doi:10.1080/01459740.2018.1549389

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