



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Original Article

Midwifery in the Time of COVID-19: An Exploratory Study from the Perspectives of Community Midwives

Katherine E. Jacobsen, MPH, CD^{a,*}, Jodie G. Katon, PhD, MS^{a,b},
Ira Kantrowitz-Gordon, PhD, CNM^c^a University of Washington School of Public Health, Department of Health Systems and Population Health, Seattle, Washington^b VA Puget Sound, Health Services Research and Development, Center of Innovation for Veteran-Centered and Value-Driven Care, Seattle, Washington^c University of Washington School of Nursing, Department of Child, Family and Population Health Nursing, Seattle, Washington

Article history: Received 21 November 2021; Received in revised form 17 June 2022; Accepted 27 June 2022

A B S T R A C T

Introduction: An increasing number of people in the United States are choosing to give birth in a community setting. There is anecdotal evidence that interest in community birth further increased during the coronavirus disease 2019 (COVID-19) pandemic. The purpose of this study was to explore the needs, barriers, and successes of community midwifery during COVID-19 and how these experiences can inform future efforts to support and sustain community-based midwifery.

Methods: This qualitative study used semi-structured interviews conducted online with 11 community midwives from the greater Seattle area who were practicing during the COVID-19 pandemic. Interviews were transcribed verbatim from audio recordings. Transcripts were analyzed using deductive and inductive coding.

Results: Participants all reported challenges navigating COVID-19–related changes, such as implementing personal protective equipment, using telehealth, and limiting support people at births. Although participants saw an increased interest in their services, the increase in uncompensated labor contributed to burnout. Many participants described regularly encountering stigma and misperceptions about community midwifery when their patients transferred to hospitals, which occurred more often among clients who chose midwifery primarily because of COVID-19 concerns. Community midwives expressed a desire to increase interprofessional collaboration with hospitals to sustain the future of community midwifery.

Conclusions: The experiences of community midwives practicing during the COVID-19 pandemic indicate strategies to reduce burnout and support community midwifery during the pandemic, natural disasters, and beyond. These strategies include improved interprofessional collaboration and higher reimbursement rates.

Published by Elsevier Inc. on behalf of Jacobs Institute of Women's Health, George Washington University.

In the United States, most births occur in hospital settings attended by medical doctors. Nevertheless, the United States has the one of the highest maternal mortality rates among high income countries (Melillo, 2021), with an overall rate of 17.4/

100,000 live births (Centers for Disease Control and Prevention, 2020). Additionally, there are stark racial and ethnic disparities in maternal mortality, with Black and Indigenous birthing people disproportionately impacted relative to non-Hispanic White birthing people (Howell, 2018). The coronavirus disease 2019 (COVID-19) pandemic has exacerbated inequities; data has shown that Black individuals are at a disproportionate risk of COVID-19 fatalities, in addition to increasing maternal mortality rates (Hoyert, 2021). In light of these alarming statistics, an increasing minority of birthing people in the United States are seeking alternative options for care such as with a midwife (MacDorman & Declercq, 2019).

Supported by the This study was supported by the US Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau (Title V, Social Security Act), grant #T76MC00011. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government.

* Correspondence to: Katherine E. Jacobsen MPH, CD, University of Washington School of Public Health, Department of Health Systems and Population Health, 3980 15th Ave NE, Fourth Floor Box 315621, Seattle, WA 98195.

E-mail address: kathelij2@uw.edu (K.E. Jacobsen).

Washington State currently recognizes two entry paths for professional midwives. Certified nurse-midwives (CNMs) are trained in both nursing and midwifery and are certified through the American Midwifery Certification Board. CNMs in Washington State must be advanced registered nurse practitioners (What is a CNM? 2020) and usually work in hospital settings. Licensed midwives (LMs), who are often referred to as community-based midwives, are licensed with the Washington State Department of Health (2020) and provide care in community settings, such as homes or freestanding birth centers (Davis-Floyd & Cheyney, 2019). LMs are required to file a plan annually with the Washington State Department of Health for medical consultation, referral, and emergency transport (Washington State Department of Health, n.d.). As of 2019, there were approximately 175 licensed midwives in Washington State (Midwives' Association of Washington State, 2019). For the purposes of this study, we refer to any birth taking place outside of the hospital as a community birth (Davis-Floyd & Cheyney, 2019).

Licensed midwifery care for low-risk individuals results in lower cesarean birth rates and decreased costs when compared with hospital-based care of low-risk birthing people. (Courtot et al., 2020). LMs are covered by all Washington State insurance plans, including Medicaid, as required by Washington State insurance regulations (Maternity Services 48.43.115, RCW, n.d.; Washington State Health Care Authority, 2020). The Washington State Health Care Authority recognizes birth centers as a safe and cost-effective birth site option and the importance of this option for patients covered by state health insurance. Washington State continues to support the provision of this service to improve the quality of care and to capture savings from improved birth outcomes (Washington State Health Care Authority, 2018).

Anecdotal evidence suggests that the number of individuals seeking community midwifery care is continuing to increase during the COVID-19 pandemic (Molla, 2020; Schmidt, 2020) owing to fears regarding risk of infection in a hospital setting (Metz et al., 2021) and continually evolving hospital policies, including limiting the number of support persons allowed with a birthing person, particularly during surges of infection (Gutschow & Davis-Floyd, 2021). This potential increase in demand for services raised concerns about the impact of the pandemic on midwives providing care in a community setting, including burnout and sustainability (Bick, 2020).

Community midwifery in the United States has a relatively small workforce with a high level of personal and professional burnout (Albendín-García et al., 2020), potentially owing to external and individual factors including lack of professional recognition (Monteblanco, 2021), occupational stigma (Monteblanco, 2018), and, lack of diversity among the workforce (Albendín-García et al., 2020; Serbin & Donnelly, 2016). Given the high level of burnout among community midwives before the COVID-19 pandemic, it was unknown whether this group of birth workers had the capacity to support the influx of new interest along with facing the stress of a global pandemic (Albendín-García et al., 2020). Thus, the purpose of this study was to explore the needs, barriers, and successes of community midwifery during COVID-19. Specifically, we sought to characterize and understand the impact of the COVID-19 pandemic on community midwives in the greater Seattle area and how these experiences can inform future efforts to support and sustain community-based midwifery.

Methods

Study Design and Population

This phenomenological, qualitative research study included semi-structured interviews with 11 midwives in the greater Seattle area in Washington State. Participants had to be a LM, student community midwife, and/or a CNM; be currently attending births primarily in a community setting (such as a freestanding birth center or homes); be at least 18 years of age; and have been/be practicing for at least 12 months and during the COVID-19 pandemic (more specifically, since February 2020). Therefore, all participants had been practicing for at least 12 months at the time of being interviewed. A convenience sample was recruited using direct email invitations as well as flyers that were shared with local midwifery professional organizations and practices. After being introduced to the principal investigator, who shared the purpose and goals of the study, participants verbally or electronically consented to be interviewed. Interviews were conducted using Zoom video conferencing technology and audio recorded with additional participant consent. The principal investigator conducted all interviews individually except for one small group interview with three midwives from the same practice. In the group interview, one participant did not meet all the qualification criteria, and thus was not included in the final analysis.

Participant interviews took place between February and April 2021. During this time, Washington State cases were finally decreasing after a surge in COVID-19 cases, and vaccinations were just starting to become more readily available to the public (Washington State Department of Health, 2021). In February 2021, Washington State was in phase 2B, meaning people age 50 and older whose job puts them at a high risk of getting sick were eligible to receive the vaccine. By April 2021, Washington State had moved to phase 4B, meaning everyone working in a higher risk setting was eligible, as were people who live, work or volunteer in congregate living settings (Washington Department of Health, 2021; Washington Department of Health, 2021). The 7-day moving average of positive COVID-19 cases in Washington State on February 2, 2021, the day of the first interview, was 1,571 cases. The 7-day moving average of people fully vaccinated on this day was 12,788. These numbers were 1,287 and 36,286, respectively, on April 16, the date of the final interview (Centers for Disease Control and Prevention, 2022).

Each participant was interviewed once with the exception of one interview, which happened in two parts owing to time constraints. Questions in the interview guide were developed to address the specific aims of the study and informed by the provider burnout model (Bodenheimer & Sinsky, 2014). The interview guide, which was pretested and approved by the research team prior to the interviews, consisted of open-ended questions and standardized probes. This allowed the interviewer to elicit rich data (Appendix 1: Interview Guide). The interviews were audio recorded and transcribed without identifiers, using the transcription software Otter.ai. One interview was not recorded owing to audio issues, and thorough notes were used. In this case, these notes and direct quotes were member checked by this participant. All participants were sent a \$25 gift card after completing the interview. The principal investigator verified transcription accuracy and participant anonymity, removing any identifiers before sharing with an additional coder. The University of Washington Institutional Review Board approved this study as minimal risk.

Table 1
Themes and Examples From Interviews of Community Midwives Practicing During the COVID-19 Pandemic (n = 11)

Theme	Quote
Relationships with hospital providers	Participant 6: I'll often start an IV before we go so that I can say "look, she's had 750 milliliters [of fluids] already, right, like, we can like get this show on the road as soon as you trace that baby for a bit"... They tell me "Oh that IV was placed in the field so we have to put our own in." So they'll take out this dripping patients IV, just as like a power play to put their own same IV in, because it was put in in the field and not by a medic, and I'm like, "you've like just punctured a hole in this human's body, right, to make some political point about that you don't legitimize the work that we do".
Relationships with hospital providers	Participant 9: There's a lot of providers who still don't know what midwives do, they don't know what our training is, you know, there's still some old school OBs out there that think we have like a bottle of whiskey and a towel and that's our, how we catch babies.
Relationships with hospital providers	Participant 9: People don't know what they don't know. So a lot of the time, people [are] in the hospital based system because that's where you go when you're pregnant when you are in the US because that's the standard thing that you do, don't even, if someone's inquiring about a different type of style of care or planned place of birth, don't encourage them to research more because they think that what we do is dangerous or just not as something that is available and that can be, that could be easily changed by a little bit of research or, or thought about, are there other options. It would also be great if they would collaborate a little bit more, sometimes.
Collaboration	Participant 11: I think there's a huge cultural shift that has to happen in in med school and OB/GYN residency is to really foster more true interprofessional collaboration. ... So yeah, I think, just more integration of professions, and really getting to see what out of hospital or community birth can look like in different settings so that we grow a new generation of OB providers who actually understand from experience, what care people are getting, I think that would make a huge difference, so that's like one level of systems change.
Collaboration	Participant 9: My hope for the future is that we learn from this. And that the, our governmental health agencies learn from this, and reach out to midwives to coordinate, because this probably will happen again in our lifetimes, right, like another pandemic is likely and it would be really easy to just let this one go and not do the work to really incorporate midwives but if we could really be more incorporated and be included and that they learned a lot during this pandemic that will carry on into their future practice.
Collaboration	Participant 3: I think it would be nice in the future, if maybe MAWS [Midwives Association of Washington State] was more connected to other like the Washington State Medical Association or other kind of health care providers for future like emergency planning.
Collaboration	Participant 9: I think there should be a Department of Health campaign about community midwifery and how safe it is and how important it was during the pandemic... how midwives, how capable and safe midwifery is for most people. And you know, we save the government money so they also have an incentive to want to do that.
Practice changes	Participant 6: I do almost exclusively home based care to keep folks from having to come in to a clinic space...I just wanted to help them to relieve one stress from they're already really hard COVID days because a lot of them are having to manage online schooling with their kids or not being able to work because of COVID. And so, like some of our clients don't have enough money for gas anyway, so they couldn't reach it to a visit, if they wanted to.
Forgotten in the shuffle	Participant 10: I think midwives are really good at adapting on the fly because it's what we do all the time. We work in a low resource setting and we're used to that. So we're really good at improvising and I think, because again, we are a smaller system of independent providers, we're, we're good at kind of mobilizing and sharing resources. That's not always the case in a bigger system.
Collaboration	Participant 5: I love being able to collaborate, when it comes to, I mean like more brains, the better. You know, like, we all have something different to bring to the table and so I think by making it a community kind of coalition kind of thing, versus just individual is very much opening the door to the kind of care that we really need.
Forgotten in the shuffle	Participant 10: Most of us who wanted to get the vaccine had to find our own sources, and there was a bunch of phone calls and networking that happened, and when somebody would find a source, if they were able to share it depending on whether or not the source allowed us to share it, there was a listserv going on in our Facebook group where we are as licensed midwives kind of have a space to talk about things like that.
Motivations	Participant 7: I ask them in some way, like what brought you to seeking an out of hospital birth? I have long conversations with people, if they give me fear based reasons, because I don't think that it's safe to make fear based reasons about things like this and so, and it's not necessarily trying to talk anybody into or out of anything.

Data Analysis

Transcripts were analyzed using simultaneous deductive and inductive coding (Tolly, Ulin, Mack, Robinson, & Succop, 2016). All interviews were individually coded using a preliminary codebook with a priori codes informed by the provider burnout model (Bodenheimer & Sinsky, 2014). Inductive coding was used in conjunction to allow for new codes to emerge. Two coders independently coded one transcript and subsequently reviewed and revised the codebook and definitions. After this process, both coders independently coded all remaining transcripts, meeting after coding every second transcript, and coding was revised to reach consensus and ensure intercoder reliability. Analysis used Dedoose Version 8.0.3 software (SocioCultural Research Consultants, LLC).

Results

A total of 11 participants agreed to participate in the study. Eight were LMs, two were student midwives working with LMs, and one was a CNM working in a community setting. Seven participants identified as White, two identified as two or more races,

one identified as Black, and one identified as Asian. Ten identified as women, and one identified as nonbinary. Interviews lasted between 22 and 63 minutes in length. Although transcripts were not made available to participants, the final findings were shared with them. Four major themes emerged from the interviews: 1) practice changes owing to COVID-19, 2) increased interest in community midwifery and COVID-19, 3) relationships with hospitals and institutions, and 4) the importance of collaboration for the future of community midwifery. Additional quotes from participants relating to themes can be found in Table 1.

Practice Changes owing to COVID-19

Participants explicitly described many changes and accommodations they had to make or chose to make since February 2020 in response to COVID-19, including use of personal protective equipment (PPE), telehealth, and changes around family/support people at appointments and births.

PPE

All participants confirmed that they incorporated extensive and consistent use of PPE into their practices for the safety of

themselves and their clients. Although some said they would not mind wearing a mask while providing care "post-COVID" to decrease exposure to other illnesses, most found that masks made communication difficult, especially when clients were hard of hearing or had a history of abuse. Participants emphasized that masks made it difficult to establish trust with patients.

Participant 9: You can definitely feel that it [PPE] decreases the connection and therefore I think the trust and I think it increases people's likelihood to transfer, because they just don't know you as well, and they can't see you as well. And there's only so much you could communicate with your eyeballs... it feels like a physical barrier to people getting close and trusting.

Telehealth

Nearly all participants described various experiences incorporating telehealth into their practices during the pandemic. Some saw telehealth as a way to increase equity and reduce access barriers related to geographic distance, transportation, and childcare.

Participant 9: I think all health care providers should now have telehealth as an option for patients because it clearly works and it just increases access and equity, which is so important, obviously, in what's going on in our health care system right now.

However, others noted that telehealth could create new barriers and safety concerns for some patients.

Participant 4: At first we were doing more telehealth and we realized that that was problematic. And we scaled back on that and that was problematic on a number of levels, one is because of access. Most of our clients have lots of access to technology and Wi-Fi, you know we're in a very privileged area for the most part, but not everyone. And not everyone has a quiet private space, and you know if there's any question of intimate partner violence like someone's, you know someone could be standing right there...

Family/support people at appointments and births

Changes and policies allowing or not allowing support people and family to accompany patients to appointments and births were particularly fraught. Most participants felt that prohibiting support people and family altogether was an inequitable and unrealistic policy.

Participant 11: For the clientele that I'm wanting to serve, it is not always possible to find childcare, like a single parent who doesn't have any other place to bring their kid.

Participants also noted that hospitals introducing strict limits on the number of support people allowed at births increased interest in their services as they could provide additional flexibility to have the kind of birth clients wanted. One participant quoted their patient, saying, "I want to be at home with my mom and, you know, my dogs and, like I actually can ask for the things that I need" (Participant 11).

However, although more flexible than hospitals, some participants still described the necessity of implementing new policies limiting number of support people at births, which represented a substantial change for them as providers.

Participant 3: "We used to not limit number of support people, and now we limit it to three support people in our birth center or at home, who are healthy and symptom free".

Increased Interest in Community Midwifery and COVID-19

Nearly all participants described an increased interest or surge in demand for community midwifery services during the pandemic. Participants reported that patients had differing motivations for seeking community midwifery and that the increase in interest may have led to unintended consequences such as greater uncompensated labor and higher rates of transfers to hospitals.

Differing motivations for seeking care

Motivations for seeking midwifery care at this time varied and participants were not sure if it was directly caused by COVID-19, although they all speculated that COVID-19 might have contributed. For example, participants perceived a desire for care with a more personal touch.

Participant 11: People are so isolated, they're really fatigued by, you know, a year plus of pandemic, and often don't have as much support, you know they're not able to be with their families and all of that.

For some patients already interested in community midwifery, COVID-19 catalyzed their decision to seek out this type of care. Participants perceived that many of these patients used COVID-19 to "justify" pursuing community birth to their friends and family, or even themselves.

Participant 7: Now they had a motivation to be able to tell other people like so many people don't do the birth that they want, because their mom thinks it's crazy, or because their bestie thinks that it's dangerous or whatever and now they have this thing where they could say, 'but COVID, I gotta stay out of the hospital for that!' but it's what they always wanted.

In contrast many participants felt that fear of COVID-19 or fear of the hospitals during the pandemic led many patients to pursue community midwifery care for the first time.

Participant 7: I think that that it was 100% fear based. And I don't think that they had inklings of home birth, I think that they had a sudden reaction to fear of getting COVID in a hospital and being in the hospital, and the restrictions.

Increased transfers

Those seeking community midwifery for fear-based reasons did not always understand the process of community birth, and often ended up transferring back to hospital care. The increase in transfers could have been an unintended consequence of this fear-based increase in interest.

Participant 4: Those people, actually, they didn't really proceed with care because I think there was a misunderstanding with some people thinking like, 'maybe I could still get an epidural' or, or something like that.

Increase in uncompensated labor

The increase in the interest in community midwifery, in the absence of necessary resources, led to additional uncompensated labor. This was on top of existing before COVID-19 expectations for a large amount of emotional labor that was uncompensated and perceived to be provided "out of the goodness of your heart" (Participant 7). This uncompensated labor included an increase in the number of free consults, phone calls, resources, and/or tours before a client officially entering a midwife's care. Although

these services are often a typical part of a community midwife and client's relationship, they became unsustainable for some owing to increased demands for care during COVID-19.

Participant 4: We did definitely get a lot of calls from people who just needed to talk and ask questions, and midwifery is unique among medical professions in that, if you call a doctor's office and you're not a patient there, you're not going to get to talk to a doctor, but if you call a birth center, you're probably going to get to talk to a midwife for free.

Some participants described the need to build boundaries around their time and services.

Participant 4: ...I felt like, we're gonna have to put some limits on this because I'm spending hours on the phone with people. And we've always you know... we give free consults, we give free tours, we'll happily give people an hour if they're seriously considering coming into our care because we want them to make an informed choice, but I can't be the therapist to strangers, even though I recognize that it's a super stressful time.

Demand for this additional labor was particularly challenging, because reimbursement rates for community midwives are already low.

Participant 6: And yet, like none of the reimbursement matches that extra additional difficulty and the emotional toll. I don't think we'll really understand it for years, how hard, emotionally, this has been. I think about it all the time, because I'm like, this is a pretty big trauma on everybody, and we're gonna not really understand it for a really long time.

Relationships with Hospital Providers and Institutions

Participants recognized the important role of hospitals and their limitations.

Participant 3: I think hospitals are wonderful places and serve really important purposes in our community, and are part of the reason that homebirth is safe. But there isn't, as you know, each provider doesn't have as much autonomy over a lot of the particulars, because it's a much more complex system.

The relationships that participants had with hospitals varied, but many described stigma and misperceptions about community midwifery they faced both from the "mainstream" medical community and policy makers. These stigma and misperceptions had specific negative impacts during COVID-19, especially with transfers, which some reported increased during the pandemic.

Participant 6: There is nary a hospital transfer that I can speak to where we're not treated by some member of the staff like dirt.

Participants described how misconceptions and the undervaluing of community midwives could be a part of what led to being largely left out of the Washington State COVID-19 response.

Participant 4: I do think that midwives and birth centers get forgotten in the shuffle around, around health care and essential health care, so there's that.

Being "lost in the shuffle" meant that nearly every participant reported difficulty accessing things like PPE to keep themselves and their patients safe.

Participant 10: I was super irritated by this at the time and still a little bit because they [the government and larger health care entities] were preventing us as smaller, outside of the system health care providers that don't have access to PPE, from getting the order we had just placed when we couldn't get it anywhere else and that was beyond frustrating.

The exception to this was participants who worked for nonprofit organizations and reported that they did get PPE from King County. A few providers also were able to get small loans and grants offered through the state, which they used to purchase supplies or filtration devices or offset general costs. Being lost in the shuffle also led to limited COVID-19 vaccine access and information for community midwives. Although many participants felt that they qualified for the COVID-19 vaccine early on, they had no way of accessing it, since most are small independent practitioners.

Importance of Interprofessional Collaboration for the Future of Community Midwifery

Many participants expressed a desire to increase collaborative efforts with other health care professionals in more mainstream medical systems to sustain the future of midwifery.

Participant 10: I think that the biggest thing standard kind of health care professionals can do is, learn about midwifery, because so often people, especially providers that have learned, like that have been educated in other states don't know anything about midwifery, or what midwifery is like here.

The COVID-19 pandemic further reinforced the need for stronger collaboration and the benefits such collaboration could bring to patients.

Participant 9: I just kind of miss all the progress that we had made up until that point in working with each other and it feels like we have to all just like... take a breath and sit back down and reevaluate what this means, because some of the partnerships have been strengthened...like, some of the collaborations have been really strengthened through COVID and you see where like, there's a, there could be some benefits of connecting these two systems. And I think that's worth paying attention to.

Discussion

This qualitative study demonstrated that community midwives experienced many barriers and disruptions as a result of COVID-19, which could in turn exacerbate provider burnout. These included themes related to practice changes, increased interest in their services and a concomitant increase in uncompensated labor, and fragmented relationships with the larger medical community. One major barrier community already midwives face that prevents them from being utilized to their full potential is low occupational status and stigma (Monteblanco & Leyser-Whalen, 2019). Participants identified the need for better interprofessional collaboration to support community midwifery as a more sustainable form of birth work and decrease or eliminate the stigma they face from other health care professionals.

Many of the themes we identified highlight numerous external and internal factors that can lead to provider burnout or

foster greater resilience, supporting the notion that this population already has suffered from burnout prior to COVID-19 (Brigham et al., 2018). For example, the increased expectation for unpaid labor directly contributed to potential burnout and appeared to be driven by community midwives' health care role as well as socio-cultural factors such as financial resources, support networks, and, family, patient, and community expectations. Additionally, participants described frequent negative relationships with hospital-based providers and institutions owing to a learning and practice environment in which there was little interprofessional collaboration and misperceptions about the role of community midwives were common. These findings were consistent with a previous study by Montebianco (2018) that found that community midwives experienced prejudice from health care providers and the public alike. Conversely, participants also noted that their practice environment allowed them to have greater flexibility and autonomy with respect to setting limits on the presence of support people at births, something that both they and their patients appreciated. Community birth is unique in that it typically prioritizes the birthing person's wishes for their birthing environment and who is there to support them (Davis-Floyd & Cheyney, 2019).

Additional studies examining the impacts of the COVID-19 pandemic on birth experiences and maternity care from the perspective of differing groups of birth workers identified themes, consistent with our findings (Brown, Moore, Keer, & Kane Low, 2022; Gutschow & Davis-Floyd, 2021). For example, Gutschow and Davis-Floyd (2021) concluded that there was a need for better integration between community- and hospital-based providers, suggesting that the pandemic provided an opportunity for a transformational shift in how pregnancy and birth care is provided. Other recommendations included equalizing access to doulas, home birth, and freestanding birth centers through coordinated insurance policies and subsidies, as well as less restrictive regulations for community midwives (Davis-Floyd, Gutschow, & Schwartz, 2020). These changes could empower community midwives to practice within the midwifery model of care, while providing flexibly to adapt to future pandemics or other disasters that our society may experience (Gutschow & Davis-Floyd, 2021). Before the current pandemic, much of the work on midwifery during times of crisis has focused on natural disasters (Montebianco & Leyser-Whalen, 2019); consistent with our findings, these studies suggest community midwives' model of care better prepares them for natural disaster response compared with other maternity health care professionals (Montebianco, 2021).

This study had several notable strengths, including the intentional efforts to recruit a relatively diverse group of participants, application of qualitative techniques to solicit rich data, and the timeliness of the topic in light of the on-going pandemic and U.S. maternal health crisis. Limitations include the relatively small sample size, focus on a single geographic region, and limited racial/ethnic diversity of our sample. However, the relatively large number of community midwives in Washington State provided a unique opportunity for this study, and even with a relatively small sample size we managed to reach data saturation. Finally, although efforts were made to ensure racial and ethnic diversity within our sample, the majority of participants identified as White. This finding in part reflects the fact that the majority of midwives in Washington State are non-Hispanic White, and this lack of diversity is a major gap not only in the data but in the workforce in general (Serbin & Donnelly, 2016; Yamasaki, McLaughlin, 2012). Another limitation of this study is

the changes that have occurred regarding the state of COVID-19 in Washington State since this work was completed, including a broader roll out of vaccines and the Delta and Omicron surges. Nevertheless, we believe that our study provides helpful insight for better sustaining and growing the community midwife workforce, particularly given the continually evolving pandemic and ongoing maternal health crisis in the United States. Further, our findings provide evidence to inform future disaster response and community midwifery policy.

Implications for Policy And/or Practice

Despite the limitations of the study, our findings have several key implications for policy and practice. The results indicate that along with the additional struggles that community midwives faced, the COVID-19 pandemic provided a window of opportunity to strengthen this area of maternal health care (Montebianco, 2021). Given the need for interprofessional collaboration that was further highlighted during the COVID-19 pandemic, ensuring involvement of community midwives in institutional and state policymaking bodies is critically important. Additionally, there is a need to enable mainstream hospital-based birth workers (mainly MDs and CNMs) to understand community midwifery through shadowing or other didactic training and the development of policies that allow joint patient management during transfers of care. Improving reimbursement rates for midwives, especially under Medicaid, which funds nearly one-half of all births in the United States (Martin, Hamilton, & Osterman, 2020), could improve access to community midwifery, decrease unpaid labor by community midwives, and increase the community midwifery workforce by making it more financially sustainable.

Conclusions

This exploratory study provides insight into the experiences of community midwives providing care during the COVID-19 pandemic. The results highlight factors that contribute to burnout among community midwives, including practice changes, increased interest in services, increased expectation of uncompensated labor, and strained relationships with hospital providers. One potential strategy to decrease burnout and improve the response in future emergencies is to proactively include interprofessional collaboration as a part of clinical training and emergency planning. Improved collaboration and integration of community midwives could better protect the community midwifery workforce, other birth workers, and pregnant and birthing people.

Acknowledgments

I, the primary author would like to thank all of the people who made this project possible. I would like to show respect and credit to all of the community midwives who paved the way for this work, especially traditional Indigenous midwives and the traditional Black midwives, who were providing midwifery care long before certification and licensure of midwifery began in the United States. I would also like to thank all of the participants of this project and all of the midwives who have been providing care during this COVID-19 pandemic, which as I have learned, has been extremely challenging. Thank you for giving me the opportunity to do this work. I, the primary author, had full access

to all the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Supplementary Data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.whi.2022.06.009>.

References

- Albendín-García, L., Suleiman-Martó, N., Cañadas-De la Fuente, G. A., Ramírez-Baena, L., Gómez-Urquiza, J. L., & De laFuente-Solana, E. I. (2020). Prevalence, related factors, and levels of burnout among midwives: A systematic review. *International Journal of Environmental Research and Public Health*, 12, 641. <https://doi.org/10.3390/ijerph17020641>
- Bick, D. (2020). COVID-19: 2020 is the International Year of the Midwife. *Midwifery*, 85, 102719. <https://doi.org/10.1016/j.midw.2020.102719>
- Bodenheimer, T., & Sinsky, C. (2014). From triple to quadruple aim: Care of the patient requires care of the provider. *Annals of Family Medicine*, 12, 573–576.
- Brigham, T., Barden, C., Legreid Dopp, A., Hengerer, A., Kaplan, J., Malone, B., ... Margaret, L. N. (2018). A journey to construct an all-encompassing conceptual model of factors affecting clinician well-being and resilience - National Academy of Medicine. National Academy of Medicine. Available: <https://nam.edu/journey-construct-encompassing-conceptual-model-factors-affecting-clinician-well-resilience/>. Accessed: September 03, 2021.
- Brown, J., Moore, K., Keer, E., & Kane Low, L. (2022). A qualitative study focused on maternity care professionals' perspectives on the challenges of providing care during the COVID-19 pandemic. *Journal of Perinatal & Neonatal Nursing*, 36, 46–54.
- Courtot, B., Hill, I., Cross-Barnet, C., & Markell, J. (2020). Midwifery and birth centers under state medicaid programs: current limits to beneficiary access to a high-value model of care. *The Milbank Quarterly*, 98, 1091–1113.
- Centers for Disease Control and Prevention (CDC). (2020). First data released on maternal mortality in over a decade. *National Center for Health Statistics*. Available: www.cdc.gov/nchs/pressroom/nchs_press_releases/2020/202001_MMR.htm. Accessed: May 05, 2021.
- Centers for Disease Control and Prevention (CDC). (2022). *Trends in number of COVID-19 cases and deaths in the US reported to CDC, by state/territory*. Available: https://covid.cdc.gov/covid-data-tracker/#trends_dailycases_7day_peoplefullyvaccinated. Accessed: May 05, 2021.
- Davis-Floyd, R., & Cheyney, M. (2019). *Birth as culturally marked and shaped*. Long Grove, IL: The Waveland Press Inc.
- Davis-Floyd, R., Gutschow, K., & Schwartz, D. A. (2020). Pregnancy, birth and the COVID-19 pandemic in the United States. *Medical Anthropol*, 39, 413–427. *Cross Cultural Studies in Health and Illness*.
- Gutschow, K., & Davis-Floyd, R. (2021). The impacts of COVID-19 on US maternity care practices: a followup study. *Front Sociology*, 6, 1–18.
- Howell, E. A. (2018). Reducing disparities in severe maternal morbidity and mortality. *Clinical Obstetrics and Gynecology*, 61, 387–399.
- Hoyert, L. D. (2021). Maternal mortality rates in the United States, 2019. *National Center for Health Statistics (U.S.). Division of Vital Statistics*, 1–5. <https://doi.org/10.15620/cdc:103855>.
- MacDorman, M. F., & Declercq, E. (2019). Trends and state variations in out-of-hospital births in the United States, 2004–2017. *Birth*, 46, 279–288.
- Martin, J. A., Hamilton, B. E., & Osterman, M. J. K. (2020). Births in the United States, 2019. *NCHS Data Brief*, 387, 1–8.
- Melillo, G. (2021). US ranks worst in maternal care, mortality compared with 10 other developed nations. *American Journal of Managed Care*, 27. Available: <https://www.ajmc.com/view/us-ranks-worst-in-maternal-care-mortality-compared-with-10-other-developed-nations>.
- Metz, T. D., Clifton, R. G., Hughes, B. L., Sandoval, G., Saade, G. R., Grobman, W. A., Manuck, T. A., ... Macones, G. A. (2021). Disease severity and perinatal outcomes of pregnant patients with coronavirus disease 2019 (COVID-19). *Obstetrics and Gynecology*, 137, 571–580.
- Midwives' Association of Washington State. (2019). *FAQ - Licensed Midwifery in Washington State*. Available: www.washingtonmidwives.org/uploads/1/1/3/8/113879963/licensed_midwifery_in_washington_state_fact_sheet_2019.pdf. Accessed: January 20, 2021.
- Molla, R. (2020). Demand for midwives and home births surges during coronavirus pandemic. *Vox*. Available: <https://www.vox.com/first-person/2020/4/28/21225201/coronavirus-covid-19-pregnancy-home-birth>. Accessed: June 21, 2021.
- Monteblanco, A. D. (2018). Midwives on the margins: Stigma management among out-of-hospital midwives. *Deviant Behavior*, 39, 1615–1632.
- Monteblanco, A. D. (2021). The COVID-19 pandemic: A focusing event to promote community midwifery policies in the United States. *Social Sciences & Humanities Open*, 3, 100104. <https://doi.org/10.1016/j.ssaho.2020.100104>
- Monteblanco, A. D., & Leyser-Whalen, O. (2019). Thinking outside of the hospital and nurse-midwife paradigms: A qualitative examination of midwifery in times of natural disasters. *International Journal of Mass Emergencies & Disasters*, 37, 138–173.
- Schmidt, S. (2020). Pregnant Women are Opting for Home Births as Hospitals Prepare for Coronavirus. *The Washington Post*. Available: <https://www.washingtonpost.com/dc-md-va/2020/03/20/pregnant-women-worried-about-hospitals-a-mid-coronavirus-are-turning-home-births-an-alternative/>. Accessed: May 06, 2021.
- Serbin, J. W., & Donnelly, E. (2016). The impact of racism and midwifery's lack of racial diversity: A literature review. *Journal of Midwifery and Women's Health*, 61, 694–706.
- Tolly, E. E., Ulin, P. R., Mack, N., Robinson, E. T., & Succop, S. M. (2016). *Qualitative methods in public health: A field guide for applied research* (2nd ed.) Hoboken NJ: Jossey-Bass A Wiley Brand.
- Washington Department of Health (DOH). Qualifications of a licensed midwife. Turnwater: Washington Department of Health.
- Washington Department of Health (DOH). (2021). *Washington's COVID-19 vaccine phases (Issue January, 2–3)*. Available: <https://doh.wa.gov/sites/default/files/legacy/Documents/1600/coronavirus/VaccinationPhasesInfographic.pdf>. Accessed: April 10, 2021.
- Washington State Department of Health (2020). Midwife license requirements: Washington State Department of Health. Available: www.doh.wa.gov/LicensesPermitsandCertificates/ProfessionsNewReneworUpdate/GeneticCounselor/LicenseRequirements.
- Washington State Health Care Authority. (2018). Birth Centers. Available: https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=HCAReport-BirthCenters10-15-18_56c1e791-64ad-44dc-a542-cea555ab471f.pdf. Accessed: February 01, 2021.
- Washington State Health Care Authority. (2020). *HCA Pregnancy services _ Washington State Health Care Authority*. Available: <https://www.hca.wa.gov/health-care-services-supports/apple-health-medicaid-coverage/pregnancy-services>. Accessed: January 10, 2021.
- What is a CNM? (2020). *Certified Nurse Midwife*. Swedish Medical Center. Available: <https://www.swedish.org/services/primary-care/types-of-providers/what-is-a-cnm>. Accessed: January 05, 2021.
- Yamasaki McLaughlin, E. (2012). Increasing the Racial and Ethnic Diversity of Direct-Entry Midwives: Exploratory Interviews with Black Midwives and Educators. Available: <https://www.washingtonmidwives.org/uploads/1/1/3/8/113879963/yamaski-mclaughlin-increasingdiversity.pdf>.

Author Descriptions

Kate Jacobsen MPH, CD (she/her), is a birth doula and maternal and child health researcher and advocate. She is passionate about evidence based interventions to address disparities in maternal and infant health. Her other interest areas include nutrition and food justice, reproductive health care, HIV/AIDS, and global health.

Jodie G Katon, PhD, MS (she/her), is a Research Assistant Professor at the University of Washington School of Public Health and Core Investigator at the VA Puget Sound Health Services Research and Development Center of Innovation. Her research focuses on reproductive and sexual health and health equity.

Ira Kantrowitz-Gordon, PhD, CNM (he/him), is an Associate Professor at University of Washington School of Nursing and practices midwifery with Providence Medical Group in Everett, WA.