

# Breastfeeding During a Pandemic: The Influence of COVID-19 on Lactation Services in the Northeastern United States

Jennifer Schindler-Ruwisch, DrPH<sup>1</sup>  and Kathryn E. Phillips, PhD, APRN<sup>1</sup> 

## Abstract

**Background:** Pandemic-related restrictions have limited traditional models of lactation support.

**Research Aims:** The primary aim of this study was to determine changes to breastfeeding support services during the coronavirus-2019 pandemic according to trained lactation providers. The secondary aim was to assess strengths and limitations of telehealth services.

**Methods:** A prospective survey was conducted entirely online using the Qualtrics platform during June 2020. Gatekeepers at Connecticut agencies and breastfeeding networks were forwarded an anonymous survey link to distribute to eligible lactation staff.

**Results:** A variety of participants ( $N = 39$ ) completed the survey and the majority (69.2%;  $n = 27$ ) were providing only telehealth services. More than half (58.1%;  $n = 18$ ) of the participants who conducting telehealth in any form, found that virtual lactation support was moderately effective compared to in-person support. Weakness of virtual support included technical and logistical difficulties, challenges assisting with latching or reading body language over the phone or online, and accurately assessing infant growth. Strengths related to virtual support included the flexibility and convenience of home-based support, expanded communication strategies, and safety from virus exposure. Further, visits with a lactation professional decreased significantly during the pandemic. Limited in-hospital and pediatrician support were also noted, particularly among groups without access to telehealth resources.

**Conclusions:** As a result of the pandemic and associated shifts in lactation services, breastfeeding disparities may be further exacerbated among those without equitable access to lactation support. Challenges and innovations in virtual support may influence adaptive options in the field moving forward.

## Keywords

breastfeeding, lactation, lactation counseling, public health, social support

## Background

Preliminary findings from researchers already have begun to suggest the detrimental mental health effects of the SARS-CoV-2 and related lockdown orders on the isolation and wellbeing of pregnant and breastfeeding women, including alarming increases in depression and anxiety (Ceulemans et al., 2020). Further, initial fears that human milk may carry SARS-CoV-2 and may allow for transmission from mother to infant have not been confirmed. In a small study ( $N = 18$ ) of coronavirus-2019 (COVID-19) positive breastfeeding women researchers found SARS-CoV-2 ribonucleic acid (RNA) detectable in one milk sample, but in one culture with a sample that was negative for the virus, suggesting human

milk is not a likely vector for transmission of the virus from mother to child (Chambers et al., 2020). In another small study of COVID positive mothers ( $N = 20$ ) who were breastfeeding, after 1 month none of the breastfed children had

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<sup>1</sup>Egan School of Nursing and Health Studies, Fairfield University, Fairfield, CT, USA

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### Corresponding Author:

Jennifer Schindler-Ruwisch, DrPH, Assistant Professor, Fairfield University, Marion Peckham Egan School of Nursing and Health Studies, 1073 North Benson Road, Fairfield, CT 06824-5195, USA.  
Email: jschindler-ruwisch@fairfield.edu

contracted COVID (Pereira et al., 2020). While guidelines originally called for the separation of an infant from a COVID positive mother, which significantly disrupted breastfeeding initiation, this guidance is no longer supported, but has still affected the feeding intentions of many mothers (Lubbe et al., 2020). The Centers for Disease Control and Prevention (CDC, 2020a) currently recommends that breastfeeding women, who may be positive for the virus, wash hands and wear a face covering when breastfeeding, but do not state that a COVID diagnosis is a contraindication for breastfeeding. Guidance has recently been updated to reflect maternal autonomy in feeding decisions and an assessment of risk done with a provider; this does not exclude the possibility of rooming-in with a COVID positive mother after birth (CDC, 2020b). Currently, there is no evidence that rooming-in with the mother places the child at increased risk for contracting SARS-CoV-2 in the hospital setting (CDC, 2020b). The World Health Organization (WHO, 2020) also maintains that all new mothers should be encouraged to breastfeed their infants, regardless of their SARS-CoV-2 status, as the benefits of breastfeeding are still seen to be greater than the potential risk of transmission. The American Academy of Pediatrics (AAP) and European Pediatric Association (EPA) similarly support breastfeeding during this time, as the immune benefits from breastfeeding may serve to protect the infant from severe respiratory symptoms related to the virus (Wyckoff; Williams et al., 2020). Further, the Academy of Breastfeeding Medicine (ABM), European Pediatric Association (EPA) and Johns Hopkins have all confirmed that in severe cases where a mother is not able to breastfeed her infant due to illness, expressing milk, using the proper hygiene, is still safe and recommended (ABM, 2020; Johnson et al., 2020; Williams et al., 2020).

Few researchers have looked at the disruption and transition of lactation services during the COVID-19 pandemic. In one Australian study (published as a pre-print only at the time this article was written), researchers documented feedback from mothers (and volunteers) seeking assistance from the Australian Breastfeeding Association during the COVID-19 pandemic (Hull et al., 2020). Breastfeeding obstacles documented from 340 individuals during the pandemic included isolation, concerns regarding the safety of mother's milk, and decreased access to face-to-face lactation support. A fear of seeking in-person lactation assistance during the pandemic, decreased accessibility of formula, and disruption in routine services, were also expressed. However, respondents in this study also reported the value of human milk being protective during this time. Volunteers did note, however, that those seeking lactation support often needed reassurance to help manage anxiety and stress related to breastfeeding in pandemic times. In addition to all the typical difficulties that can arise and necessitate lactation support, these respondents reported additional challenges during the pandemic which suggested that increased, rather than decreased, lactation support was needed. Although these

### Key Messages

- Pandemic-related restrictions have limited traditional models of lactation support, but the extent of these adaptations and their effectiveness are largely unknown.
- The majority of providers surveyed found that virtual lactation support was moderately effective compared to in-person support.
- Limited in-hospital and postpartum breastfeeding support during the height of the pandemic were noted, particularly among groups without access to telehealth resources.

researchers have reported their preliminary findings in a pre-print that has not undergone peer review or editorial oversight, it may be useful.

We sought to better understand the changes to lactation services during the COVID-19 pandemic according to the perspectives of trained lactation providers, and the strengths and limitations of telehealth lactation services, using a broad, social ecological perspective (Bronfenbrenner, 1979). While this study was specific to a Northeastern United States regional sample, the implications of this research may be relevant to any region with a high prevalence of SARS-CoV-2 that has shifted the provision of lactation services to virtual or modified formats. In the United States, women receiving supplemental nutrition benefits from the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) have historically low breastfeeding rates (CDC, 2020c; Deming et al., 2014). Further, historical racial disparities in breastfeeding exist, including that non-Hispanic Black women have a lower ever breastfeeding rate, compared to other racial/ethnic groups (CDC, 2017). There is potential for the pandemic to increase racial breastfeeding disparities if there is inequitable access to services, as a result of the pandemic. Understanding these inequities is critical to ensure all women have access to necessary and quality lactation services. Thus, the primary aim of the study was to determine the changes to breastfeeding support services during the COVID-19 pandemic according to trained lactation providers. The secondary aim was to assess strengths and limitations of telehealth services.

## Methods

### Design

A prospective, cross-sectional survey design, with an online convenient sample (Gordis, 2014) was employed to study the shift in lactation services. This design was selected to conduct a point-in-time understanding of a unique event in time, in a responsive and exploratory manner (Bernd, 2017). An exploratory design approach was considered appropriate

for this novel and evolving unique pandemic circumstance (Bernd, 2017). The study was approved by the Fairfield University IRB.

### Setting

In Connecticut (CT) 86.3% of children are breastfed (ever), compared to the national rate of 83.2%. However, exclusive breastfeeding at 6 months falls slightly below the national average (24.9%) in the state (23.6%; U.S. Breastfeeding Committee, 2019). According to the *Maternity Practices in Infant Nutrition and Care Survey* in 2018, CT scored above the national average on scores related to immediate postpartum care, rooming in, feeding education and support, discharge support, and institutional management (CDC, 2018). CT scored below the national average on just one subdomain of this survey (feeding practices; CDC, 2018). As a state, CT had a population of approximately 3.5 million in 2019, with almost 80% of the population identifying as white and 12% as Black or African American (U.S. Census, 2019). The median household income in CT between 2014–2018 was \$76,106 and 10% of people are estimated to live in poverty. As of March 2020, 44,111 people were enrolled in WIC in CT (U.S. Department of Agriculture [USDA], 2020a, USDA, 2020b). Women receiving WIC (nationally) have an ever breastfeeding rate of 77% and an exclusive breastfeeding rate of 19%, compared to women who were WIC eligible, but not receiving WIC benefits of 82% and 31%, respectively (CDC, 2017). Non-Hispanic Black women also have a lower ever breastfeeding rate of 73.7% nationally, compared to non-Hispanic Asian and white women (90% and 86.7%, respectively) and Hispanic women (84.1%; CDC, 2017). Nationally, almost 2.2 million non-Hispanic white women received WIC in 2017, compared to 1.4 million non-Hispanic Black women, and 2.9 million Hispanic women (USDA, 2020a, 2020b).

### Sample

A convenience sample of lactation professionals who serve WIC recipients were specifically recruited, to elucidate whether COVID-19 and the related lack of current in-person WIC services may serve to further exacerbate existing breastfeeding disparities. In order to recruit a diverse sample of lactation providers across the state of CT, and in surrounding areas, an email recruitment letter was sent to key gatekeepers at local WIC agencies and through local breastfeeding networks (i.e., breastfeeding coalition listservs, La Leche Leagues, local hospital lactation staff).

Providers were eligible if they currently offered breastfeeding services to pregnant/postpartum women, had formal training (at least one of the following lactation credentials: Certified Lactation Consultant, International Board Certified Lactation Consultant<sup>®</sup>, Registered Nurse, trained Peer Counselor, Certified Lactation Specialist, Certified Lactation

Educator, or related lactation professional role/credential) to provide support, and were over the age of 18. Any interested participants who were under age 18 or did not provide breastfeeding services as part of their job and receive formal training to do so were excluded. All participants received a \$10 e-gift card for their time and participation. To reserve anonymity, gatekeepers did not provide the researchers with details of the providers referred to participate, however, they were asked to distribute the recruitment announcement to all eligible staff that met the above criteria. WIC gatekeepers were over-sampled to better understand the disparities that may be exacerbating breastfeeding disparities among the WIC population during the pandemic. In total, 40 participants started the survey and only one participant who followed the recruitment announcement (which listed eligibility criteria) was ineligible to continue, for a final sample of  $N = 39$ . This represented a small, convenient sample that was powered to detect statistical difference between large subgroups, but additional sample size is needed to draw inferences to the population at large.

### Measurement

Given that limited data on COVID-19 and lactation services exists, an online survey approach combining novel quantitative and qualitative questions was created by the authors, then previewed by a provider for clarity and completeness. The questions were created to allow for open-ended responses to help capture areas for future study and highlight unknown challenges in the lactation field. The online survey was designed with several safeguards to prevent duplicative or false results. In addition to the fact that the survey was sent directly to eligible lactation staff through trusted gatekeepers, the platform had built in protections to ensure surveys could not be taken from the same IP address (researchers were blinded to IP address) and reCAPTCHA technology prevented bots from completing the survey. A “good faith” clause was put into the consent form to ensure that all participants taking the survey did in fact meet the eligibility criteria and, from the quality of the qualitative responses and time stamp for survey completion, the authors believe the survey responses captured are valid. The survey instrument offered face validity, but full validation and reliability of the measure with a larger population of providers is warranted.

The variables measured were: types of lactation support provided (in-person vs. telehealth); telehealth platforms utilized; strengths/weaknesses and comparative effectiveness of virtual lactation support compared to in-person support; average lactation visit frequency (before and during COVID-19 related restrictions); access to virtual lactation services; effectiveness of online support groups and peer support; perceived levels of hospital and pediatrician lactation support; perceived changes in breastfeeding initiation and duration; perceived inequities in breastfeeding support; and Personal Protective Equipment (PPE) usage.

Survey items measuring perceived effectiveness used a 5-point Likert scale from 1 (Not at all effective compared to in-person support) to 5 (Very effective/comparably effective to in-person support), while questions relating to perceptions of breastfeeding changes included an option for “unsure.” Open-ended fields were provided to ensure that varying opinions not captured by the quantitative items were included. A copy of the complete survey can be found in the Supplemental Materials.

### Data Collection

The survey was open for the entire month of June 2020 and conducted entirely online using the Qualtrics platform. Interested and eligible staff were distributed an anonymous survey link. Electronic informed consent was collected from all eligible participants as the first page of the online survey. Participants had to click that they consented to participate prior to moving forward to the survey portion. Key gatekeepers at local WIC agencies and through local breastfeeding networks (i.e., Connecticut Breastfeeding Coalition listservs, La Leche Leagues, local hospital lactation staff) forwarded the anonymous survey link to eligible staff. Other than lactation credential and geographic area served, no other demographic or participant characteristics were collected. Anonymous responses were stored in a secure online program and password protected data file. The survey contained approximately 33 questions (dependent on skip logic), that took an estimated 10 min to complete.

### Data Analysis

For quantitative responses in relation to both aims, SPSS (Version 25) was used to find frequencies and descriptive statistics for each question item. A chi-squared analysis was undertaken to compare questions pre/during COVID-19 (i.e., the difference in visit frequency, captured as two categorical variables, before and during COVID-19). An iterative thematic analysis, with a combined inductive/deductive coding approach was utilized for all qualitative responses (Creswell, 2007).

## Results

### Characteristics of the Sample

Of the respondents, 94.8% ( $n = 37$ ) served WIC recipients in some capacity (61.5% [ $n = 24$ ] only served WIC recipients) and most were CT state providers (three [7.7%] served within the greater CT area). Most of the respondents were Certified Lactation Consultants (CLCs;  $n = 23$ ; 59%), but many held the International Board Certified Lactation Consultant (IBCLC) certification ( $n = 13$ ; 33.3%). There were also peer counselors ( $n = 4$ ; 10.3%), registered nurses/licensed practical nurses ( $n = 5$ ; 12.8%), physician assistants/

nurse practitioners ( $n = 3$ ; 7.7%), nutritionists ( $n = 2$ ; 5.1%), and four (10.3%) who fell into other lactation serving categories, not mutually exclusive.

### Changes to Breastfeeding Support Services (Aim #1)

Of the participants surveyed, 69.2% ( $n = 27$ ) used all online/telehealth for services during the height of the COVID-19 pandemic (March–June 2020), while 15.4% ( $n = 6$ ) conducted all in-person visits, and the remainder utilized a combination of both modalities. Most participants reported their patients largely preferred telehealth visits to in-person visits during this time (83.3%;  $n = 30$ ). The most common platforms used for the 29 participants who responded to how they provided telehealth lactation support were phone only ( $n = 14$ ; 48.3%), a combination of phone and virtual support through a program or app like FaceTime, Duo, or Zoom ( $n = 7$ ; 24.1%), primarily Zoom or FaceTime for video consultations ( $n = 5$ ; 17.2%), MyChart telehealth platform ( $n = 2$ ; 6.9%), and a variety of other modalities including texting support, and WhatsApp or HouseParty app.

Of the 31 participants who responded to these telehealth questions, the majority (58.1%;  $n = 18$ ) found that virtual lactation support was moderately effective compared to in-person support offered prior to the pandemic. Another 16.1% ( $n = 5$ ) of participants found virtual lactation support moderately less effective than previous in-person options.

Participants did note the challenges when patients did not have a device to receive support, in particular 23.3% of participants providing telehealth services ( $n = 7$ ) reported access issues where patients did not have video capabilities or were unable to use/download an app needed for virtual consultation. There was also a statistically significant decrease reported in visit frequency pre-COVID-19 versus during-COVID-19 postpartum lactation visits  $\chi^2(4, N = 37) = 21.25$ ,  $p < .001$  (two-tailed). During COVID-19 restrictions, 27% ( $n = 10$ ) of 37 reporting participants indicated providing support groups for multiple breastfeeding women, albeit largely in a virtual format. Participants reported these groups often had lower attendance, modified frequency, and that the virtual format often limited discussion. Many participants noted that they converted their support groups to individual virtual sessions, but this new modality lacked collective support. Other participants noted that virtual groups often consisted of pre-recorded video content instead of in-person demonstrations. Of those conducting groups, 70% ( $n = 26$ ) felt they were less effective compared to in-person groups. Almost 22% of participants ( $n = 8$ ) felt that peer support, generally, was less available during the pandemic.

Almost half ( $n = 17$ , 47.2%) of participants also had concerns related to the level of in-hospital support prior to discharge after birth. Participants reported that patients were spending fewer days in the hospital after birth, often with limited lactation consultant contact. Further, many noted the lack of in-person hospital groups and mothers who needed to

await COVID-19 test results prior to breastfeeding initiation. One provider commented:

I think that hospitals have been trying, but at some point mothers were having a much shorter stay (less opportunity for support) and also there were the conflicting messages on COVID-positive mothers and infant separation; some hospitals were testing all women and then keeping baby and mom separated while waiting for results—often to the detriment of a successful start to feeding (including some instances of giving formula, which probably would not have happened pre COVID).

Additionally, 64% ( $n = 23$ ) of 36 responding participants felt that women were receiving insufficient lactation support from their pediatricians since postpartum visits were often less frequent, being held via telehealth, and lactation participants were often not immediately available for a consult via telehealth at the time of the infant appointment. Further, newborn weights were not taken as consistently, especially if telehealth replaced an in-person visit, and therefore infant growth was more difficult to accurately ascertain, resulting in what some participants reported as increased referrals to formula. Approximately 46% ( $n = 17$ ) of 37 reporting participants surveyed reported that patients were being referred to lactation services as consistently as before, while another 13.5% ( $n = 5$ ) felt that the referrals to lactation support decreased during the COVID-19 pandemic (the remainder were unsure).

Almost 70% ( $n = 25$ ) of 36 participants reported seeing changes in breastfeeding initiation and duration during COVID-19. Interestingly, many participants noted the potential improvements in breastfeeding initiation related to more time at home with infants to establish breastfeeding and supply. Others reported mothers indicating limited formula availability or wanting to provide immunity to their infants from COVID-19 leading to increased desires to breastfeed. However, other participants reported cases of mothers separated from their infants at birth due to potential COVID-19 infection limiting initiation ability, in addition to virus-related fears, pandemic-driven uncertainty, and less in-hospital and postpartum breastfeeding support. In addition to potential barriers to lactation support in-hospital and immediately postpartum, participants also reported less peer and family support due to COVID-19 related visitation restrictions, and the resulting isolation of new mothers, which could adversely affect sustained breastfeeding. The majority of the 37 participants (57%;  $n = 21$ ) reported seeing changes in women's perceptions of breastfeeding during COVID-19, including increased receptivity to the idea of breastfeeding for the immune benefits, but many also expressed concerns that breastfeeding was sometimes viewed as an additional stressor for parents during a pandemic.

More than a third of 36 reporting participants ( $n = 13$ ; 36.1%) indicated that some groups of patients were

disproportionately affected in their ability to receive lactation services and breastfeeding support by COVID-19 related circumstances, including minority groups, under/uninsured, those who did not speak English as their first language, groups with higher rates of COVID-19, and COVID-19 positive women. For example one provider noted:

Covid has isolated mothers more than before Covid. Peer support is lacking. I think lactation support by a lactation consultant should be covered by insurance during Covid as well as always! There are not enough LCs who do virtual support. The greatest need are low income families, non-English speaking families.

Of 37 reporting participants surveyed, 57% ( $n = 21$ ) provided lactation support to suspected or confirmed COVID-19 patients, largely via telehealth support. Some indicated that individuals with a COVID-19 diagnosis had their lactation visit rescheduled to a later date. Participants who conducted in-person lactation support reported the stress and fears for both the mothers and participants, which included frequent hand-sanitizing and mask-wearing. Almost all participants surveyed (92%;  $n = 34$ ) were provided with COVID-19 safety resources for conducting lactation support during the pandemic, many of which were online trainings, web resources, or webinars. Several participants reported hospital trainings and briefings related to COVID-19 policies and PPE trainings/tutorials. All participants ( $n = 12$ ; 30.7%) who conducted in-person consults utilized PPE, although several participants reported that this interfered with their ability to provide comparable lactation services ( $n = 5$ ; 41.2% of those conducting in-person consults). For example, one provider noted: "The mask can make speech a bit muffled..." and another said, "The googles/face shield make it incredibly hard to see when they fog up." Further, other participants noted the challenges of demonstrate latching with their own mouth covered: "I am used to showing parents with my lips how good versus poor latches can look with lips rolled in or out and can't do this with a mask on." Three participants reported that the PPE they required was limited, including inability to find gloves, needing to use a personal supply of PPE rather than employer provided, and low-quality masks. One provider who was conducting in-person lactation support commented: "The masks we get are un-rated. Super thin. On the one hand, moms are tested, so there is some protection there.... BUT I am very close to mom's head when working with baby at breast." Several participants also noted that, despite the changes and difficulties of providing comparable lactation support during the COVID-19 pandemic, improved modalities for telehealth are growing. As one provider described:

I believe that the way we adjust and acclimate to providing breastfeeding support virtually will only grow and build better ways of, and more options for, providing women additional

**Table 1.** Strengths and Weakness of Virtual Lactation Support.

| Themes  | Example   |
|---|---|
| <b>Weaknesses</b>   |   |
| Difficulty assisting with latch and positioning                           | “Unable to see latch up close, unable to describe things well enough as I would in person”  |
| Technical difficulties  | “Participants not having the required virtual applications needed, to be able to offer the virtual support.”  |
| Logistical challenges   | “Virtually the screen is small, I’m at the mercy of the person holding the phone for video of the mother/baby, I must use a cloth model breast to demonstrate how to hold/position the breast, I have to verbally direct the mom over the phone, and many interrupts on both sides of the conversations (dogs, children, other calls) etc...”             |
| Rapport and body language limitations                                     | “Over the telephone, it is harder to read all the non-verbal cues as you would in an in-person counseling session.”   |
| Unable to get accurate weights /growths and assist with diagnostic issues | “Unable to obtain accurate weight on baby. Difficult to visualize oral anatomy. Dependent on “good camera” person assisting mom with visit at home.”  |
| <b>Strengths</b>  |   |
| Safety  | “Being able to schedule a virtual with clients availability. Having more than one virtual visit as needed. Not having to go to their houses, as most of them don't feel so comfortable having visits. with the current COVID-19 situation and having a newborn in the house or being at their prenatal stage.”  |
| Reduces travel time/ convenience  | “Better than no support; makes it easier as far as constraints of time, babysitting/travel etc”   |
| Flexible, immediate, continuous support available                         | “At times faster response to breastfeeding concerns that arise-phone call appointments more readily available than in person appointments may have been.”   |
| Increased comfort in patients own home                                    | “The client feels comfortable in their own environment. It reduces the barrier of having to leave the house and potentially bring the children to an appointment.”  |
| New communication strategies  | “The positive has been that we have sharpened our communication skills to create simple visual analogies and images to ensure assimilation of the information. In general, we should be hands off, particularly peer counselors. When we are with our mothers, they urge us to help and it’s everyone’s natural inclination to provide physical support.” |

breastfeeding support and lactation services through various platforms in various ways, which, in my opinion, the more options and sources the better overall.

Additionally, participants indicated increased awareness of breastfeeding during the pandemic as a pivotal time for health promotion: “COVID-19 is an opportunity to raise public awareness of the importance of breastfeeding for protecting the health of infants.”

### **Strengths and Limitations of Telehealth Services (Aim #2)**

Five main themes emerged relating to the weaknesses of virtual lactation support, including difficulty assisting with latch and positioning virtually, technical or logistical challenges of connecting virtually, rapport and body language limitations (especially with phone-only support), and the inability to get accurate weights and chart growth of the infants based on feedings, or assisting with diagnostic issues (Table 1). However, there were also themes related to the strengths of virtual support, including safety (limited exposure/risk of contracting COVID-19), reduction in travel time/increased convenience, flexible support available,

increased comfort of patients in their home environment, and the ability to utilize new communication strategies (Table 1).

### **Discussion**

Our results provided a preliminary, but qualitatively rich, look at the emerging influence of the COVID-19 pandemic on lactation services. There was a clear shift to virtual lactation services at the onset of the pandemic that was still common at the time of this survey, almost 3 months after the original lock-down orders in the region. While it is clear that many of the participants were finding novel and innovative ways to utilize the technology to continue lactation services, disruptions were evident. Technical and logistical issues with technology, women without access to technology or translation services, inaccurate growth measurements, insufficient hospital support prior to discharge and at pediatric appointments, as well as limitations inherent to using PPE during in-person consultations were highlighted.

Additionally, fears and concerns from pregnant and postpartum women related to the safety of breastfeeding, along with contradictory initial and subsequent guidance and hospital policies related to testing and separation at birth, have

led to fear and confusion. Women may have felt their breastfeeding options were limited and lactation support may have been inaccessible and insufficient at times. Isolation, lack of peer support and other parenting stressors during the pandemic may have further complicated a woman's ability to access needed support.

The CDC (2020d) has defined telehealth loosely, as any remote monitoring patient care, occurring synchronously or asynchronously, using any of multiple technological modalities. This flexibility allows for increased reach of services, especially during the pandemic, through a variety of ways, many of which were reimbursable by insurance (CDC, 2020d). While this allows increased options for services, limits in access to suitable or equitable technology (phone only vs. video support) can affect the utility of telehealth services. Digital equity initiatives in CT have focused on access to educational technology for remote learning; however, in over 100 school districts across the state, a range of 4%–35% of students (district dependent) were without broadband internet access at home (Connecticut Commission for Educational Technology, 2020). At the national level, while cell phone usage is relatively ubiquitous, an estimated 15% of Americans do not have a smartphone and this varies by demographic (Pew Research Center, 2019). Additionally, 25% of Americans do not have a laptop or desktop computer and another 50% do not have a tablet or comparable device (Pew Research Center, 2019). Further, there is a marked disparity in lack of broadband services by race, where Black and Hispanic adults have much lower rates of at-home internet (23%–25% without) than white adults (12% without; Pew Research Center, 2019). Smartphone devices are also marginally less common among lower-income adults, Black and Hispanic adults, and women, than the general population of adults (Pew Research Center, 2019). Not having internet or a suitable device could greatly affect the equitable access of lactation services. Given that certain demographics are less likely to have access to a device to access telehealth services equitably, disparities in breastfeeding rates by race could be further exacerbated by inequitable access to care during this time. While demographic characteristics were not collected directly as a part of this study, future research related to inequitable access of lactation services during this time is critical to understand the results of the pandemic on disparate breastfeeding service provision.

Since this survey in June 2020, some in-person services have resumed, but as of October 2020, CT WIC continues to conduct phone appointments only (Connecticut Statement Department of Public Health, 2020). Among women giving birth at the onset of the pandemic, the influence on breastfeeding and disrupted lactation services may be evident in both the short- and long-term, as re-lactation after a period of disruption is not always possible. Future researchers should continue to study the immediate and ongoing effects of the pandemic-related shift in lactation services on breastfeeding outcomes among a representative sample of participants and

patients. Given that there already exist many racial disparities in both maternal health and rates of COVID-19, perpetuated by a myriad of social-ecological, multi-level factors, including racial discrimination and injustice (Artiga et al., 2020; Chowkwanyun & Reed, 2020), there is a critical need for increased attention to the inequitable effects of this shift in lactation care and cumulative influence of racial disparities on breastfeeding rates.

### Limitations

While this survey asked participants about their perceptions of the changes and their individual experiences during this time, these experiences may not be representative of all other lactation participants, and they may be affected by the time the survey was taken. Since this survey was created in response to COVID-19 and a rapidly changing lactation context, a previously validated survey instrument was not available. However, in attempting to provide anonymity for respondents based on the “gatekeeper” dissemination strategy, no true response rate can be calculated and it is impossible to ascertain the representativeness of the responses.

Similarly, patients and breastfeeding women were not directly surveyed, and provider perceptions are not meant to replace or account for the vast and unique experiences that new mothers may be experiencing during this pandemic. Demographic characteristics of participants or their patients were not collected, and future researchers should collect racial/ethnic and other relevant socio-economic characteristics of mothers directly to better understand the inequities faced as a result of the pandemic.

Outside of pandemic circumstances, having the opportunity to interview lactation participants face-to-face or distributing the survey in person (vs. its current online only option) may have increased the quantity of survey responses and added to the richness of the data. Timely feedback from lactation participants highlights preliminary evidence of the changes made to the lactation field in response to COVID-19, but further investigation of these changes and their long-term effects is warranted.

### Conclusions

In the years following the onset of the COVID-19 pandemic, ongoing data collection will likely illuminate the relative effects of the pandemic and associated shifts in lactation services on rates of breastfeeding initiation and duration. Optimistically, initiation rates may improve as mothers often had increased time at home to establish breastfeeding and maintain a supply. However, limitations of in-hospital, outpatient and virtual support, as well as other pandemic-related factors (isolation, stress, food insecurity, fear of virus transmission, lack of peer support etc.) may affect breastfeeding duration. Women who were not able to establish breastfeeding in the immediate postpartum period due to a COVID-19 diagnosis, lack of immediate lactation support, or inability to

access support (due to language, technology, or insurance barriers) may have lost the opportunity to breastfeed their child(ren). Breastfeeding disparities may be exacerbated further among those without equitable access to lactation support. It is unknown whether lactation support will continue to include telehealth at the current level in the years to come, or whether in-person lactation support will become normative once again. Further, the long-term influences of modified lactation support groups, including decreased levels of peer support, may be measurable. Regardless, moving forward, challenges and innovations in virtual support may influence communication and adaptive options in the field.

### Ethics approval

Fairfield University IRB

### Informed consent

Electronic informed consent was collected from all eligible participants as the first page of the online survey.

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### ORCID iDs

Jennifer Schindler-Ruwisch, DrPH  <https://orcid.org/0000-0002-4805-8231>

Kathryn E. Phillips, PhD, APRN  <https://orcid.org/0000-0002-5592-3078>

### Supplemental Material

Supplemental material for this article is available online.

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