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ORIGINAL ARTICLE

Diversity, Equity and Inclusion

Alleviating stressfeeding in the emergency department: Elucidating the tensions induced by workplace lactation space issues

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Abstract

Objectives: Women remain underrepresented in the emergency medicine (EM) workforce, academic EM, and institutional leadership. In order to support women physicians in EM, we must explore factors that contribute to attrition and workplace satisfaction. For example, tensions between workplace and familial roles are important to consider as women navigate careers in EM. The logistics and stressors of workplace lactation pose a particular challenge during an already stressful time for a new mother returning to work in a busy emergency department (ED), but limited empirical data exist regarding this experience. We aimed to explore the stressors associated with workplace lactation spaces in order to better inform the creation of lactation spaces for individuals working in EDs.

Methods: Our team used an exploratory qualitative design to investigate lactation-specific stressors and understand their relationship to individuals' needs when lactating in EM workplace environments. A total of 40 individuals were interviewed, highlighting post-pregnancy return-to-work (RTW) experiences of medical students, residents, advanced practice professionals, nurses, fellows, and faculty. Interviews were coded and analyzed using thematic analysis.

Results: We identified both tangible and intangible characteristics of lactation spaces that contribute to stress for lactating individuals. Additionally, we discovered that participants frequently noted a desire to work simultaneously while pumping in order to feel they were self-actualizing in their dual roles of parent and clinician. Among

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tangible items, access to a computer within lactation space was a key driver of ability to fulfill dual roles. Among intangible characteristics, we identified three distinct, yet interrelated, subthemes, including the need for lactation spaces to be respectful of individuals' time, privacy, and general health and well-being.

Conclusions: This study suggests that meeting basic lactation needs with thoughtfully designed lactation spaces can empower individuals in their roles both as a lactating parent and a clinician. EM leadership can evaluate existing lactation spaces to ensure they meet the tangible and intangible needs of lactating physicians, trainees, advanced practice professionals, and nurses.

1 | INTRODUCTION

1.1 | Background

In emergency medicine (EM), female trainees remain the minority.[1] Gender-based career discrepancies remain problematic for recruiting, retaining, and advancing female physicians, leading to inequity as women are less likely to reach advanced academic ranks.[2–4] Furthermore, empirical evidence suggests that patient-care outcomes may be superior for female physicians, which means a lack of female physicians may have a direct impact on patient care.[5–7] However, female workers who are parents also face conflicting familial and workplace demands on their time and ability to perform their roles, and this conflict is a major driver of productivity and overall stress.[8–11] Challenges integrating work and familial identities have been linked to female physician attrition.[12] Furthermore, a recent study found a striking gender gap in stress levels of emergency physicians that may be explained by workplace–home tension.[13]

1.2 | Importance

Organizational support for workplace lactation in EM can promote improved job satisfaction.[14–16] Workplace lactation barriers for physicians include clinical time pressures and lack of access to appropriate lactation spaces.[17–36] Within EM, our previous work found that cultural pressures surrounding physical separation from the department created enormous barriers to lactating while working clinically.[37] However, data elucidating the specific qualities of a lactation space that beget success remain scant. A survey of healthcare workers (less than 20% of whom were physicians or medical students) identified desired tangible qualities such as a hospital-grade pump, sink, a comfortable and wipeable chair, countertop space, refrigerator, and a computer.[38] While ideal features of an ED lactation space have been recommended,[31] to date there exist no empirical, EM-specific studies to evaluate the appropriateness of these recommendations or challenges associated with implementation. Furthermore, there exists no framework to conceptualize which modifiable qualities of a lactation space departmental leaders facing financial and space constraints should prioritize.

1.3 | Goals of this investigation

Achieving comprehensive workplace lactation support requires a deep, nuanced understanding of individuals' needs in relation to their clinical setting. To this end, we aimed to answer the question: *What qualities of a lactation space contribute to or alleviate stress for lactating individuals in emergency medicine?*

2 | METHODS

2.1 | Study design and setting

This study used a qualitative exploratory research design to understand specific stressors and needs of lactating individuals within EM. Stanford and Emory were selected because they have (1) high-volume emergency departments consisting of community, county, and academic sites, (2) established lactation policies, and (3) an above-average proportion of female EM faculty.[4] All members of the research team identified as women, were affiliated with one of these two sites, and had one or more postpregnancy return-to-work (RTW) experience(s). Being mindful of potential biases and to establish credibility, we assembled a team reflecting the continuum of EM physician training as well as a PhD Scientist, who does not work clinically but has a deep understanding of the culture and climate of EM. Our team consisted of two practicing attending physicians (K.L.M. and N.B.), one fellow (N.P.), one resident (S.I.), and one research scientist with an EM faculty appointment and extensive methodological expertise (S.S.S.). K.L.M. and S.S.S. created a detailed study protocol which all members were trained upon when joining the study team.

2.2 | Selection of participants and data collection

The majority of participants were recruited from two distinct academic health systems. Initially, a list of all Stanford EM residents and faculty who gave birth and returned to work within the 3 years preceding the study period was generated by the research team. Using purposive and snowball sampling, invitations to participate in an

The Bottom Line

In this exploratory, qualitative study, intangible and tangible characteristics of lactation spaces were found to contribute to stress for lactating individuals working in the emergency department. Frequent themes identified were a desire to work simultaneously while pumping with access to a computer in the lactation space, as well as lactation spaces that were private, available, proximal to the work environment, and clean.

individual, semistructured interview (see Appendix A) were extended to Emory EM faculty, trainees, nurses and advanced practice providers (APPs), in addition to Stanford participants, who met the inclusion criteria; this allowed us to evaluate the transferability of findings across context and settings. The final sample reflected a broad spectrum of clinician training and practice within EM (see Table 1). A number of participants were able to describe and compare RTW experiences in different roles (eg, an individual with experiences both as a trainee and an attending). From October 2019 to December 2020 , K.L.M., N.P., and S.S.S. conducted 44 interviews with 40 distinct participants. Four participants were interviewed twice because they had an additional RTW experience after the start of the COVID-19 pandemic, allowing us to capture specific nuances (eg, changes in attitudes regarding cleanliness). The use of a semistructured interview allowed participants to elaborate, at their leisure, about issues that were most important to them, and many expressed eagerness to share details regarding experiences that no one had previously inquired about. Participants described their unique RTW experience(s), lactation-related stressors, and ideal workplace lactation space, and were given an opportunity to contextualize their responses. K.L.M., N.P., and S.S.S. took field notes and created memos, documenting observations, settings, reflections, and helped identify discrepant cases. We continued data collection until we achieved both rigor and richness to sufficiently describe our themes.[39]

Interviews were conducted via Zoom,[40] ranging from 15 to 102 min (average: 31 min; total: 23 h). Interviews were audio-recorded, transcribed verbatim, and de-identified prior to analysis. Member-checking occurred with a subset of participants. Findings were confirmed or corroborated by other researchers in presentations made at multiple EM grand rounds and national EM meetings. This return-of-findings provided audience members with the opportunity to engage with the findings and offer feedback and refinement. This study was approved by the Institutional Research Board at Stanford University, and discussion with the Emory site allowed the Stanford IRB approval to extend to all participants.

2.3 | Data analysis

Using Nvivo software,[41] the data were first analyzed inductively according to the six phases of reflexive thematic analysis.[42] To famil-

TABLE 1 Characteristics of participants.

	Nurses	APPs	Trainees	Faculty	Total
Participant role	5	3	7	25	40
RTW experiences	9	4	17	34	64

Note: Participants included clinical and nonclinical faculty (i.e., attending physicians, fellows, and research faculty), trainees (ie, medical students and residents), advanced practice providers (APPs, ie, nurse practitioners and physician's assistants), and nurses. We defined fellows as faculty due to the similarity of their role clinically with other faculty attending physicians. Our sample represents the total number of participants in each role as well as the total number of return-to-work (RTW) experiences in each role given that some participants had more than one RTW experience to share (i.e. a participant who was included in the study based on the most recent RTW experience also had other prior RTW experiences that they were able to speak to, either in the same clinical role or different). Quite a few faculty interviewees had prior RTW experiences as trainees that they could compare and contrast during the interview. While no current medical students were included in the study, some physician participants had a prior RTW experience as a medical student that they were able to describe. One trainee was not an EM resident but rather a pediatrics resident who had rotated through the pediatric ED during her RTW time and was able to contrast the experience lactating in the pediatric ED with her experiences lactating on her other pediatrics rotations.

iarize with the data, K.L.M., N.P., and S.S.S. read interview transcripts and made analytical memos and developed the initial codebook. The team quickly identified that physical space and tangible qualities were not the only issue. Afterward, the broader research team met to review codes, discuss relationships between codes, and search for themes. Codes related to qualities of the ideal lactation space and to the effect that these qualities had on participant stress were identified and discussed. Relationships among codes were discussed extensively (eg, desiring an available space and how lack of availability sometimes led to pumping in bathrooms, which were considered not a clean space). Codes were combined to develop themes from the data, and the analysis team (K.L.M., N.P., S.I., and S.S.S.) met twice monthly to review, define, and describe the themes. To elucidate the specific tangible qualities that facilitate lactation, we then performed a deductive thematic analysis, starting with the ideas and recommendations provided in the theoretical piece *Breast Practices*. Two coders (N.P. and S.I.) independently performed the deductive analysis; any coding discrepancies were resolved by the broader team using consensus and documented as part of our data collection and analysis process. In the final stage, the research team produced a report, using the consolidated criteria for reporting qualitative research,[43] that tied back to the original research question and literature using interview data.

3 | RESULTS

As participants described their actual and ideal lactation spaces, it became apparent that both tangible and intangible aspects of lactation spaces contribute to and can alleviate stress for lactating individuals. Below, we present and elaborate upon tangible items as well as intangible characteristics, such as a respect for time, privacy, and general well-being, that participants identified as crucial to decreasing the stress associated with workplace lactation in EM. Illustrative participant quotations can be found in Table 2.

3.1 | Tangible items for a conducive and inclusive workplace lactation environment

Participants identified necessary items for pumping and working in the ED environment. Such items included a chair, sink, table, pump, cleaning supplies, and electrical outlets (see Table 3). Although these items seem obvious, most participants identified that one or more of these items were lacking in their current lactation environment. Additionally, some participants mentioned need for a refrigerator reserved for breastmilk storage because of concerns about cleanliness, space, and fear of disappearing milk. There were also many participants who mentioned wanting access to food and drink while lactating because their protected time to lactate was included within scheduled or mandated breaks afforded to all employees. Even when the desired tangible lactation items were available within the lactation space, they sometimes were nonfunctional and hindered the workplace lactation experience. For example, one participant described the "artsy" table provided for lactation that was uneven and required a "balancing act [so you] don't spill your milk" (F16). Participants also repeatedly described institutional barriers to securing their tangible lactation space needs despite their individual efforts.

In addition to supporting the act of pumping, items such as a functional table and chair were frequently described in order to support continuation of clinical responsibilities while lactating. Most physicians described needing computer access, not only to monitor patients and the ED, but also to minimize the need to stay late after their shift to chart. APPs and nurses working in busy EDs similarly expressed a desire to chart while lactating. Participants also reported using other communication devices such as phones, radios, and loudspeakers to stay connected to the ED while lactating (see Table 4). This connection was described as important because participants reported being stressed in situations where they felt forced to choose between fulfilling their parenting roles (e.g., feeding one's child) and workplace roles (eg, caring for patients); environments designed to alleviate this tension were described as having better morale while also upholding high-quality patient care.

3.2 | Intangible characteristics that support a respectful workplace lactation culture

While seeking to identify the tangible needs of lactating individuals, we found that all participants described intangible characteristics of lactation spaces which contributed to stress. These intangibles included cultural practices within ED environments that were viewed as not respectful of an individual's time, privacy, or general health and wellbeing (see Table 5).

3.3 | Time

Participants often described time as the most crucial element when integrating lactation into their clinical workflow. Every minute spent searching for a suitable lactation space was seen as a distraction from patient-care and, in some instances, resulted in participants prematurely stopping lactation, as this participant described: "I wasn't gonna fight that battle, I was just gonna stop breastfeeding" (F02). Lactation spaces located even a few minutes away from the ED were considered insurmountable, as spending any amount of time away from patients added to participants' stress and created further anxiety.

3.4 | Privacy

Lack of privacy while pumping was a common experience for participants; this experience was viewed as degrading and dehumanizing, yet common in workplace lactation: "Brave as I am, and I kind of pump wherever I want, the fact is I don't like that, that's obviously not my first choice to expose my breasts to everyone" (F04). Many participants described their strong preference not to feel forced into compromis-

TABLE 2 Illustrative quotes about tangible and intangible qualities of emergency department lactation spaces.

Theme	Subtheme/ description	Participant	Quotation
Tangible	Items for pumping at work	N4	"…a fridge and a freezer, a countertop, a chair, a sink with soap and paper towels. Those in my workplace can't be assumed."
		F03	"…refrigerator that has just [milk] that they know they can store their milk safely, that no one's gonna come in and take it, or throw it out, or mess with it."
		F23	"Added pressure for emergency people is eating and drinking and staying well hydrated. So it's pretty important to me to be able to have some water or some kind of food or something while I'm pumping…I tend to cram everything into that 20, 25 minute session where I'll eat everything, check the board."
		F19	"…artsy wood table that had a dip in the middle. I don't know who decided to put that in a pump room. So that was kind of this balancing act of don't spill your milk to add to the mess of stuff."
		F20	"they always tried to get the softest and the nicest, comfy, single armchair that you could find. But that's actually not always the easiest way to pump."
	Items for working while pumping	F11	"Adequate table space, because the table that we work on, it works, when you add your pumps, plus the computer stuff, and then a lot of times I'm also using that time to eat, too, because that is the lunch break; it gets kind of crowded. So a bigger table space, I think, would be helpful."
		F17	"The computer issue [having a computer with EMR access in the lactation space] was something that I had brought up with the leadership and they were 'working on it.' But then I brought it up with a senior female faculty member and it happened, like, overnight. And so I think that having other people advocate for you as well really helps move things along."
		F09	"I don't think I got as much sleep because I would always have more work to do because I felt like I still needed to see the same amount of patients as everybody else even though I had an hour or so total in a shift time that I was pumping and doing other stuff for that, so I feel like I ended up with more charts and less time since I didn't have a computer for the majority of the time that I was in the downstairs office, so I had a lot more work to do after, and I stayed late, and at home, and stuff like that. And I was always farther behind as far as charting and getting out of the emergency department at the end of my shift. So I think that it affected the amount of sleep I got."
		F07	"I think to effectively be able to pump at work you need a computer. Does that make sense? Like without guilt, well you're always going to have guilt, but with less guilt and being more realistic."
		F25	"there was a computer in there to chart" so I did that. And that was one way I didn't feel like I was breaking off, I was keeping the flow going."
		F03	"…computers so they feel like—ok, I don't have to rush to pump so I can get back because I'm worried about [my patients]."
		APP01	"It was nice to have the option [to use the EMR while pumping], though, because then I would catch up on notes sometimes. Usually I always had someone that was covering for me. So there was nothing that I was super worried about. But I think if I had been in an area by myself and didn't have anybody watching out for me or taking care of my patients, then I would definitely want to be seeing what's going on and connected."
		N04	"One thing that was in there that was very helpful was a computer. I saved a lot of my time-intensive charting to do while I was pumping."
		N05	"If I was working assignment and I wasn't a charge nurse, I would feel that I would want to look at a computer to make sure that my patients were okay."
		F07	"…the pumping space was far away; there was no computer, no phone. One time I tried to bring my phone down, and it was a two person pumping pod, and there was a nurse in the pod next to me that was like, you're not supposed to be talking. I could try to bring my laptop from home and log in to the Stanford portal as if you're going from home to do some work, but, realistically speaking, it was horrible. I was rushed. I felt terrible about it. I was out of the loop with work. And it was a miserable experience all around."
		F18	"residents have gotten pretty comfortable with calling. So I leave my cell phone number, like on a sticky on the computer and they call and present patients while I'm pumping or ask questions or whatever they need and they'll call and text me, which I think has … it doesn't feel like I'm gone because I'm still immediately available."

(Continues)

TABLE 2 (Continued)

Theme	Subtheme/ description	Participant	Quotation
		F20	"You are able, if you are anxious about something, to check back at the EMR. And sometimes I use it to chart, that meant that I could get out of my shift earlier, too […] EMR access was ideal; being in rooms where I didn't have access to a computer made me more nervous."
Intangible	Time	N01	"..there was a waiting time to get that [lactation] room, which, you know, when someone comes to break you, you only have that 20 minutes."
		T03	"there was also the spot down in the basement, not the one down in Occupational Health but in that bathroom. But that was the spot for I think most of the hospital, and there were only 2 seats, so half the time I would get there and it would be full anyway and so then I would have to walk the other direction and back up the stairs so that would take time. And then sometimes there wouldn't be call rooms either…So it was hard to find a physical location, it was hard to find a time to leave the ED…Because there's always ambulances rolling in and new patients, and consults."
		F02	"former place I worked did not have a breastfeeding room in the emergency department, um it was like two or three floors up and so there was like no way you could leave your job to go and do that or if you were gonna do that it required like a lot of coordination on your part to like get other people to cover your patients for a certain amount of time and then you also had no access to a computer which also was like a big barrier to doing it and so it was just incredibly inconvenient to do it and not well supported and so I just had determined that like that was I wasn't gonna fight that battle and I was just gonna stop breastfeeding or not do it."
		F24	"having it [the lactation space] right in the ER is really nice. That's important to me as well, because if it were any farther away, even if it was gorgeous, I wouldn't really have time to go there."
		APP03	"Our lactation room was located a floor above the emergency department. Now, that's not too far, but still, given that the emergency department is such like a fast-paced setting, high-risk, and it's always changing so rapidly, it would be more effective to have lactation rooms in the emergency department so that we don't have to walk all the way upstairs, leave the department, feel like we're leaving our patients without any type of coverage."
		F20	"I don't think I ever even used the actual pumping room. I would just go to the residents' lounge…and because it was within the department, it felt safer. I was a new attending. I would just pump in that space because I felt like I wasn't outside of the ED and I felt less anxious about that."
	Privacy	F19	"I mean, I pumped in patient rooms, I pumped in break rooms, I pumped in like a medicine room that I got walked in on once. Like even when they don't need any medicine, of course the person stocking the room came in. There was like windows that you couldn't close and there was like roofers out there just watching…You know, stuff like that. It was not ideal and I was all over the place trying. But yeah, I was walked in on several different places except for that pumping room."
		F23	"I'm kind of shy about wearing it [the cordless pump] in front of people just because it really does kind of make you like Dolly Parton. Like you've got these big… I will wear them in front of my partner and my family and stuff, but for some reason it's a little weird for me…Obviously it should be private. Privacy would be great."
		F24	"I think privacy would be more ideal…it's like the curtain doesn't even go to the wall. So if somebody goes into their mailbox area, they just see you sitting there with your, like, bra's hanging out, which is not what you want."
		F04	"I don't mind if it's a break room, and you know brave as I am, and I kind of pump wherever I want, the fact is I don't like that, that's obviously not my first choice to expose my breasts to everyone. So it would be nice if it was a spot that was either, if it was a break room just for women only, or people who are also similarly pumping. That's obviously not a high requirement, but I would like that."

(Continues)

TABLE 2 (Continued)

Theme	Subtheme/ description	Participant	Quotation
		F22	"The hospital does have a designated space, but some of the nurses in my department joke that that room is for pooping because there's a bathroom in the lactation room. So sometimes, it's not available because people use it as like a private bathroom, and it's also for the entire hospital."
		F17	"anybody in the ED has access to the lounge and it's a room within the lounge. So really anybody could technically use it. There were some issues where people would go in there to sleep. So then people had to put up signs, this is only for lactation. But yeah, there wasn't any restricted access to that."
		N02	"always had a passcode, but it's usually only for charge nurses and educators. So, because there was nowhere else we can pump, the office right next to the educator room is occupied with management, also. So, that empty room was supposed to be available for us to pump, even though it it doesn't have a sink, and it doesn't have a fridge, but it was a locked door. So, it could be used. However it got occupied by the material managers. So, during the daytime, I work nine to nine, 9:00 AM to 9:00 PM. So, pretty much before five o'clock, the Education room is usually occupied. It's either doing some sort of training, there's some sort of town hall meeting, or a conference that is happening in the Education room. So, most of the time, my first pump break, I do it in my car."
		F10	"it [the pumping space] was semi-private, but not totally. I mean, there were definitely times when someone was not, I don't know why, but they would like, kind of like peak behind the curtain and not realize that I was there, which was weird."
	Health and well-being	N04	"if I didn't have a dedicated, clean space […] I probably would not have made it [to my pumping goals]." (N04)
		APP02	"so our lactation room basically had everything I did need, which was nice. Like a little table, a chair and a small fridge, but the floor was dirty, and I think there was a roach on the floor."
		F23	"The added anxiety I have is donning and doffing. So I have like whole hazmat stuff we wear at work, and so I have like a section in my office where I have a dirty zone and a clean zone and a ton of Clorox wipes, but I have a lot of anxiety about contamination, so I'm really freakish about cleaning everything."
		F14	"Pumping in the ER bathroom is maybe one of the least sanitary places I could imagine ever pumping, and I, unfortunately, do it every day. It's just having a clean space with access to a computer and power would make my life infinitely better."
		APP02	"…very anxious about returning to work already because of having to pump, but COVID made it a million times worse."
		F27	"I've always been pretty good about hand washing, all that stuff. Obviously, we didn't have all that PPE, having to wear a mask. There was definitely a lot of anxiety. Because when I had my daughter, it was in February, and it was the month before everything got shut down and we were still not entirely sure how the virus was spread. So I was just a little bit anxious about everything I was touching in the ER, and I still am. I mean, not anxious, but now I'm definitely… I used to make fun of the doc who would come in and wipe down his station before he would start typing and everything. And now I'm that doc."

Note: Participants are identified by their role at the time of the interview F# (faculty, including fellows), T# (trainee, eg, resident), APP# (advanced practice provider), or N# (nurse). Participants may have commented during the interview on prior RTW experiences, as well (e.g., a current faculty member may have also had a prior RTW experience as a resident, or a current resident may have had a prior RTW experience as a medical student), and participants were encouraged to describe and compare their current and prior experiences.

TABLE 3 Frequency of participant-mentions of tangible items of lactation space conducive to the act of pumping.

Item	Mentioned specifically wanted	Mentioned specifically did not want	Did not mention specifically
Refrigerator	35[a]	0	5
Chair	25	0	15
Sink	21	3	16
Table	22	0	18
Permanent hospital-grade pump	17	0	23
Cleaning supplies for space	14	0	26
Outlet	14	0	26
Water access	7	0	33
Pumping supplies	7	0	33
Supply storage	6	0	34
Microwave	3	0	37

Note: Tangible items within a space can facilitate the act of lactation. For each item, we report frequency of mentions for related items as described by the 40 participants as either (A) specifically mentioned desiring the characteristic, (B) specifically mentioned NOT desiring the characteristic, or (C) did not mention the characteristic explicitly during the interview. Repeat interviews of participants during COVID were excluded from reporting. Not listed are characteristics mentioned only once or twice throughout all interviews, which included TV, window, garbage, freezer, and toilet.
[a]Of these, 10 participants mentioned specifically desiring a breastmilk-only refrigerator.

TABLE 4 Frequency of participant-mentions of tangible items within lactation space that facilitates working while lactating.

Item	Mentioned specifically wanted	Mentioned specifically did not want	Did not mention specifically
Computer	31	2	7
Telephone	13	0	27
Loudspeaker	4	0	26

Note: Technological devices were described as facilitating dual roles of parent and clinician. For each item, we report frequency of mentions for related items as described by the 40 participants as either (A) specifically mentioned desiring the characteristic, (B) specifically mentioned NOT desiring the characteristic, or (C) did not mention the characteristic explicitly during the interview. Repeat interviews of participants during COVID were excluded from reporting.

TABLE 5 Frequency of participant-mentions of intangible aspects of lactation space.

Aspect/feature	Mentioned specifically wanted	Mentioned specifically did not want	Did not mention specifically
Time			
Proximal	33[a]	0	7
Available	21[b]	0	19
Privacy			
Private space	30	1	9
Lock	14	0	26
Sign	3	0	37
Well-being			
Cleanliness	17[c]	1	22

Note: Intangible aspects of lactation space include respect for time, need for privacy, and general wellbeing/cleanliness. For each, we report frequency of mentions for related features as described by the 40 participants as either (A) specifically mentioned desiring the characteristic, (B) specifically mentioned NOT desiring the characteristic, or (C) did not mention the characteristic explicitly during the interview. Repeat interviews of participants during COVID were excluded from reporting.
[a]Eighteen participants specifically mentioned desiring the space to be within the ED, itself.
[b]Twelve participants specifically mentioned desiring the space to be exclusively purposed for lactation.
[c]Seven of these mentions were in the pre-COVID interview group ($n = 24$), and 10 mentions were in the post-COVID group ($n = 16$).

ing their modesty in front of colleagues: "see you, sitting there, with your bra hanging out, is not what you want" (F22), but some participants reluctantly sacrificed their privacy in order to lactate while at work. Some participants elaborated that, while sharing a multifunctional space was not inherently bad, the ideal would be a dedicated lactation-only space because spaces that are accessible to all-comers were often occupied by nonlactators using the space for other purposes. Participants' desire to seek a private lactation space resulted in individuals lactating in nondesignated locations (e.g., vehicles, utility closets, and unoccupied rooms). Finally, more than half of our participants disclosed lactating in a bathroom due to a lack of adequate lactation spaces.

3.5 | Health and well-being

The majority of participants described cleanliness as essential toward maintaining dignity during workplace lactation. One APP explained: "so our lactation room basically had everything […], but the floor was dirty, and I think there was a roach on the floor" (APP2). Participants who were fortunate enough to have their own private office space often used it because they could ensure it was clean. Conversely, participants with no other options lactated in spaces that were dirty, which unfortunately included bathrooms:

> Pumping in the ER bathroom is maybe one of the least sanitary places I could imagine ever pumping, and I, unfortunately, do it every day. It's just having a clean space with access to a computer and power would make my life infinitely better (F13).

Additionally, COVID-19 heightened workplace lactation-related stress for many participants and the need for cleanliness was described more frequently among participants interviewed during the COVID-19 pandemic.

4 | LIMITATIONS

Our study primarily sampled participants from sites with current lactation policies, and results may not address issues faced by individuals at sites without policy support. Additionally, we did not collect race or ethnicity data; cultural differences might be elucidated if we were able to analyze data with respect to more specific demographic characteristics. To further assess transferability and determine the extent to which these findings are reflective of local cultural practices, future studies could explore other settings (e.g., rural or critical access) or countries with varying conditions such as duration of parental leave or single-coverage practice. While the interviewers may have been personally familiar with some participants from the initial recruitment list, introducing potential biases, expansion through snowballing sampling provided data from individuals not personally acquainted with any interviewer.

5 | DISCUSSION

While our prior work demonstrated enormous on-shift cultural hurdles to stepping away to lactate,[37] this study elucidates that when individuals do step away, they often enter stressful environments and situations that fail to meet their needs. We found that participants routinely described lactation spaces as inadequately outfitted with the tangible items necessary for lactating. We also identified that, for various reasons, most individuals want the ability to continue clinical duties while lactating. Furthermore, participant descriptions of lactation environments suggest a cultural lack of respect for their time, need for privacy, and health and well-being. By exploring qualities of lactation spaces that contribute to stress, we gleaned insights into specific tangible and intangible attributes of EM workplace lactation spaces that can empower women and support them in their roles both as a mother and a clinician, thereby easing the tension that can arise in fulfilling both roles simultaneously.

Importantly, we also found that the lack of adequate lactation space resulted in unnecessary stress, whereby individuals felt forced into a lose-lose quandary between fulfilling their responsibility to patients and their responsibility to their own children. In the United States, the majority of women who work in EDs and breastfeed return to work at a time when their infant is still completely dependent upon breastmilk for sustenance. Furthermore, upon RTW, they routinely encounter dynamic, life-and-death patient care situations. As these competing demands manifest, a work-lactation tension is created. Such a work-lactation tension is an example of more broadly described workplace-familial tension that is known to contribute to workplace stress, attrition, and failure to self-actualize. Therefore, it is reasonable to suggest that addressing the unmet tangible and intangible needs of lactating individuals can facilitate a person's ability to simultaneously lactate and continue clinical duties, thus easing workplace-familial tensions and improving job satisfaction.

Below, we offer specific lactation space recommendations that arose from this study, are informed by current literature, and can be used to drive important policy changes. Then, we provide a framework for organizations to assess and improve upon the current state of their workplace lactation environment.

5.1 | Novel findings

While the authors of the recent perspective piece Breast Practices[31] could not cite any EM literature to support their recommended characteristics of an ideal ED lactation space, our data corroborate many of their recommendations and offer a few additions. First, our data adds nuance to recommended tangible lactation space items. For example, participants highlighted that sometimes the comfortable chair provided did not actually support the appropriate body positioning for pumping. Providing breastmilk-only refrigeration and ergonomically appropriate tables and chairs goes a long way in facilitating simultaneous lactating and working; these are examples of

low-cost interventions that can substantially reduce stress for lactating individuals.

Another salient insight from our findings is that organizational empowerment is required to support individuals in creating lactation spaces that adequately meet their needs and reduce workplace-lactation tensions. Breast Practices directs a recommendation toward *individuals* to "use a computer or telephone while pumping remotely" to facilitate ongoing work while pumping. However, our study reveals that most EM clinicians want to work while pumping and report being unable to enact this level of intervention (e.g., obtain computer within lactation space) without action from leadership. This finding suggests that the operationalization of this concept must be placed on *organizational leadership* to provide an appropriate space, including electronic medical record access. Top-down logistical support, combined with input from utilizers of the space, to outfit spaces in such a way that supports women's desire to fulfill dual roles as clinician and parent may ease workplace-lactation tensions for lactating individuals and foster a culture of respect for the dual roles of the lactating clinician.

5.2 | Violations of policy and law

The existing American College of Emergency Physicians policy *Support for Nursing Mothers*[44] aligns strongly with the themes that we identified. Nonetheless, our data provide striking evidence that the policy, first published a decade ago, is routinely ignored. Within our data, the most egregious violation of policy is the necessitated and regular use of bathrooms as lactation spaces. The federal Fair Labor Standards Act (FLSA) requires provision of a lactation space "other than a bathroom, that is shielded from view and free from intrusion."[45] While physicians are exempt from many of the FLSA's provisions, nurses are part of the protected labor group, and nurses in this study routinely pumped in their cars due to not having an FLSA-compliant space.

5.3 | Steps organizations can take to meet lactation needs

Despite guidance from position papers,[31] policy statements,[44] and calls-to-action,[46–48] the lived experiences of lactating individuals in EM falls short of the ideal. What accounts for this failure to meet the needs of the female workforce and ensure dignity and respect for lactating mothers? Since evidence suggests that senior male faculty perceive less significant gender gaps than junior female faculty report,[49] one hypothesis is that lack of mothers in leadership positions could contribute to leadership blind spots regarding the persistent lactation-space problem and the workplace-familial tensions arising from it. We suggest that local EM organizational leadership engage in a Plan-Do-Check-Act cycle[50] to evaluate and improve current lactation conditions, utilizing the findings in this study to aid in assessment of the current local state (see Supporting Information) and in goal setting.

We find that women in EM desire a lactation space outfitted with thoughtfully chosen tangible items that support simultaneous lactation and clinical duties. Additionally, they desire a lactation space that is respectful of their time, need for privacy, and general well-being. If organizational leadership proactively adheres to these principles, they may provide more ideal lactation spaces and mitigate workplace-lactation tension for those lactating in EM, thus supporting self-actualization in the dual roles of parent and physician.

AUTHOR CONTRIBUTIONS

Kimberly L. Moulton, Nicole Battaglioli, and Stefanie S. Sebok-Syer conceived the study, designed the protocol, obtained research funding, and undertook recruitment. Kimberly L. Moulton, Nicole Prendergast, and Stefanie S. Sebok-Syer performed data collection. Kimberly L. Moulton managed the data. Kimberly L. Moulton, Samantha A. Izuno, Nicole Prendergast, and Stefanie S. Sebok-Syer analyzed the data and collaborated regularly at research meetings. Kimberly L. Moulton and Stefanie S. Sebok-Syer drafted the manuscript, and all authors contributed substantially to its revision. Kimberly L. Moulton, Samantha A. Izuno, Nicole Prendergast, Nicole Battaglioli, and Stefanie S. Sebok-Syer take responsibility for the paper as a whole.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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