ORIGINAL ARTICLE

Ecological factors affecting Infant at Work policies and programs in university settings

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Abstract

Objectives: This study identifies the ecological (ie, policy, environment, intrapersonal, and interpersonal) factors affecting the implementation of an Infant at Work program in a university setting.

Methods: Data were collected among faculty, staff, and graduate students at a large Midwestern university from February to July 2020 via focus group (FG) discussions with university employees (n = 22) and semistructured interviews with university administrators (n = 10). We used techniques from expanded grounded theory, allowing for a constant comparative approach to data contextualization and theme identification.

Results: Three themes emerged from the FG data: (i) program and policy scope, (ii) employee and employer benefits, and (iii) workplace concerns. Onsite daycares, flexible schedules and participation, and expanded childcare options were some of the programs and policies employees desired. However, barriers to implementing these types of programs include cost, safety, and structure of the work environment.

Conclusions: Findings offer practical recommendations and strategies to improve work/life balance among parents transitioning back to work in a university environment. Findings also provide insight into the feasibility of family-friendly workplace policies and environments. Additionally, findings provide a framework for other organizations to implement similar Infant at Work programs to improve employee work/life balance.

KEYWORDS
family-friendly workplace policies, infant at work programs, parent well-being

1 | INTRODUCTION

Maintaining an adequate work/life balance, defined as equilibrium between professional and personal demands, is increasingly challenging for families with young children.[1,2]

Parents must adjust their work/life balance when returning to work after welcoming an infant into their homes due to increased financial stress and altered family dynamics.[3] Challenges to achieving work/life balance have been exacerbated by the ongoing COVID-19 pandemic, with mental

health, food security, access to childcare, and insurance coverage all being negatively impacted.[4,5]

Infant at Work programs—programs typically allowing parents to bring their infants to work between ages 6 weeks and 6 months—can support strong work/life balance by creating family-friendly environments.[6,7] These programs positively impact employees through increased infant/caregiver bonding, parental wellbeing, healthy infant development, breastfeeding, and reduced emotional and physical stressors.[8] Additionally, such programs allow parents to return to work sooner by providing a flexible work environment.[9] While there is little research on Infant at Work programs, other family-friendly practices, such as breastfeeding and lactation rooms,[10] breast pumping at work,[11,12] and onsite childcare,[13,14] have been studied. These practices demonstrate that programs may enhance work experiences through decreased emotional distress and facilitated career advancement.[15,16] Infant at Work programs may provide additional benefits including increased financial stability[17] and schedule flexibility.[18-20] Additionally, such programs may result in reduced employee absences and increased productivity.[21] Noting these benefits, Infant at Work programs may be positioned to address several crucial health, wellness, and socioeconomic concerns of parents and employers.[22] Further, employers can reap the benefits of decreased training and hiring costs, increased productivity and profits, and the ability to recruit and hire the best candidates.[23]

Despite the perceived benefits of Infant at Work programs, there are notable concerns. Workplace feasibility and coworker comfort are barriers to program implementation.[22,24] Integration of Infant at Work programs requires extensive workplace adjustments and provisions, including private workspaces and additional safety precautions.[25] Employee's ability to juggle the dual role of parenting and working, including adhering to daily work responsibilities, such as meetings, conference calls, and time on task, may also be challenging.[26] Potential liabilities must also be considered, such as infant safety and sensitivity to other coworkers. Some of these concerns can be addressed by setting detailed procedures and guidelines for participating parents.[27] Though Infant at Work programs can provide myriad benefits to both employers and employees,[22] these programs present unique barriers that must be examined to determine implementation feasibility. Further research is needed to understand the various considerations for developing and implementing Infant at Work programs in a university setting.

1.1 | Theoretical rationale

Diffusion of innovations (DOI) posits information about innovative products and services diffuse through social systems and may be differentially adapted depending upon an individual's characteristics.[28] Concepts from DOI can be utilized to influence the adoption of innovations by accelerating the spread of ideas,[29] including a novel Infant at Work program. The DOI characteristics (relative advantage, compatibility, complexity/simplicity, trialability, and observability) can be valuable in understanding how to implement an Infant at Work program. Additionally, the Social-Ecological Model (SEM) is useful in thinking through the multilevel change an Infant at Work program would introduce. SEM examines the various interactions occurring on individual, relational, community, and societal levels.[30] Since an Infant at Work program would require changes across all levels, it would be advantageous to apply SEM to better understand how barriers and facilitators arise from the interplay of these levels.

1.2 | Study purpose

As childcare costs continue to rise,[31] more parents consider asking their employers for flexible work options. While childcare stipends, flexible schedules, and paid parental leave are options, each has substantial financial costs. Many family-friendly universities have policies and practices that support employees, such as flexible working arrangements, paid/unpaid leave, and pausing tenure clocks.[32] However, many parents, especially mothers, do not use these benefits because they fear formal or informal repercussions, so the programs and policies may be insufficient.[33,34] Infant at Work programs may be a novel, low-cost approach to enhancing family-friendly university workplaces.[35] This study aimed to identify the ecological (ie, policy, environment, intrapersonal and interpersonal) factors affecting the implementation of an Infant at Work program in a university setting. This aim was achieved by examining three key areas: (i) how faculty, staff, and graduate students transitioned to work after welcoming an infant into the home; (ii) current programs and policies supporting parent employees; and (iii) the compatibility of an Infant at Work program and policy within this university setting.

2 | METHODS

2.1 | Focus group discussions

University employees (faculty, staff, and graduate students) were recruited to participate in focus group (FG) discussions via posted flyers in campus buildings. Eligible participants had to (i) be currently employed by the study's university in a faculty, staff, or postdoctoral researcher/graduate student role; (ii) be at least 18 years of age; and (iii) have welcomed an infant into their home within the last 3 years. Based on their roles, eligible participants were placed into one of three

FGs (staff, faculty, or graduate student) to ensure homogeneity and facilitate sharing. We hoped this organization would prevent conflicts of interest that could negatively affect participants outside the study. FGs were held in the same private room in a university building between February and March 2020, before the social distancing requirements began due to the COVID-19 pandemic.

Overall, three FGs were conducted across a total of 22 participants (eight in the staff FG, seven in the faculty FG, and seven in the graduate student FG). FGs ranged from 110 to 120 minutes; a doctoral student with extensive training in qualitative methodologies led the sessions; an undergraduate research assistant comoderated by observing, recording, and managing tasks. All FGs were audio-recorded. These discussions followed a semistructured format, which allowed moderators to add, change, or omit questions based on the flow of conversation. This guide allowed novel insights from participants to drive the conversation. We probed participants to discuss changes and challenges in work/life balance after welcoming an infant into the home and how the university supports parent employees upon their return (Table 1). Participants completed an anonymous demographic survey. To create a comfortable atmosphere and to compensate all participants for their time and efforts, we provided a light lunch and $30 Target gift cards.

2.2 | In-depth individual interviews

University administrators were recruited to participate in in-depth, individual interviews through direct email communication. We selected administrators who were leaders of legal and ethics departments, human resources, faculty affairs, and college deans. Interviews were held at a time convenient for the participants during June and July 2020. Due to the social distancing requirements, we interviewed stakeholders remotely via Cisco WebEx video calls. Overall, 10 university administrators participated in interviews, which explored their attitudes and perceptions of work/life balance and policies that support a university-wide, family-friendly culture. Each participant provided written and verbal consent, including permission to be audio-recorded and completed an electronic demographics questionnaire.

A master's student with graduate-level qualitative methodology training led the interview process with an undergraduate researcher comoderator. A semistructured interview format similar to the FGs was used. Interviews ranged from 45 to 60 minutes. Questions probed on current family-friendly benefits offered and attitudes toward Infant at Work programs and perceived implementation challenges (Table 2). We did not provide interview participants with a monetary incentive. All interviews were audio-recorded only.

TABLE 1 Selected focus group topics, questions, and probes

Program benefits	What ways do you think Purdue University could benefit from an Infant at Work program?
	Probe: What are some ways you think these could be addressed to improve employer interest and support?
	How would an Infant at Work program allow you and your family to have greater financial stability?
Program concerns	Please share any concerns you may have about bringing your infant to work. What may be causing these concerns?
	Probe: How might it affect your productivity? Why?
	Probe: Would you be concerned about your infant disturbing your coworkers?
	Probe: How might bringing your infant to work with you be overwhelming?
	Would you be comfortable bringing your infant to work with you? Why or why not?
Program possibilities	If you had a meeting to attend, how comfortable would you be with leaving your infant in the care of a coworker while you attend the meeting? Why?
	How would an Infant at Work program affect your decision to return to work?
	Probe: Would an Infant at Work program allow you to return to work sooner? Why or why not?
	Probe: How might it affect your ability to advance your career? Reach career goals? Achieve work/life balance?
	Do you think an Infant at Work program would provide a platform for you to talk about parenting with others in your workplace?

TABLE 2 Selected interview topics, questions, and probes

Program functionality	How likely would it be to implement an infant in the workplace program in your department?
	Probe: Whose responsibility would this be in your department? Why?
	Probe: Is this something you have heard your departmental colleagues wanting or needing?
	What benefits are already offered to employees?
	Probe: Some departments and offices already offer some flexible work from home scheduling for parents. How likely is it that this could expand and be successful across Purdue University*? Would this be something you would offer your employees if an infant in the workplace program wasn't possible?*
	Probe: Are benefits consistent between Colleges? Departments? Positions, such as faculty vs. staff?
Implementation concerns	What two things do you view as the primary barriers to implementing an Infant at Work program at Purdue University?
	Probe: What solutions can you think of that would allow us to overcome these barriers?
	Using your Purdue University professional responsibilities lens, what do you see as some of the biggest concerns about developing and implementing an Infant at Work program and policy?
	Probe: What can be done to overcome these concerns?
Program logistics	What safety and liability measures would you put in place to protect the employees and Purdue University? What considerations would you need to make to do this? Why?
	The next thing we are going to talk about is what an ideal Infant at Work program looks like to you. I am going to ask you a series of questions getting at the nuances of program development.
	Probe: Would participation look different between roles? ForExample, between faculty and staff? Or staff and graduate student employees? Why or why not?
	Probe: What amount of flexibility do you see this program having? This could be things like enrollment flexibility, work location flexibility

2.3 | Data analysis

Data analysis followed a grounded theory approach to ensure participant narratives were prioritized. Researchers read all transcripts to develop a preliminary codebook of participant words and phrases, or in vivo codes, to facilitate data analysis. The expanded grounded theory allowed for the incorporation of existing theory into interpretation; therefore, DOI and SEM concepts, as well as extant concepts from the literature, were also included. Researchers initially completed open coding, where all relevant codes were applied to portions of data based on the established meaning. Then, researchers completed axial coding, where codes were connected within and among transcripts to determine broader patterns, which were compared with existing family-friendly workplace literature. This comparison within and between transcripts and literature allowed for theme identification. All researchers met to discuss coding and theme development; discrepancies were resolved via consensus.

3 | RESULTS

3.1 | Participant characteristics

Overall, 32 university employees participated in a two-phase study. Faculty, staff, and graduate students (n = 22) participated across three homogenous FG discussions, while university administrators and leaders (n = 10) participated in individual interviews. See Tables 3 and 4 for more participant details. Three primary themes with subsequent subthemes emerged: (i) Infant

at Work program and policy scope, (ii) employee and employer benefits, and (iii) workplace concerns. These themes are presented below with illustrative quotes and corresponding FG type (ie, Staff FG, Faculty FG, and Student FG) or interview participant numbers (ie, P1XX), which were used to preserve anonymity while still showcasing a variety of participant narratives. Other salient quotes can be found in Table 5.

3.2 | "It might look different for me": Infant at Work program and policy scope

3.2.1 | Trialability

To placate the uncertainty to be the first to try an Infant at Work program, demonstrable results of pilot programs are necessary. One participant commented on how the novelty of an Infant at Work program may cause resistance, saying, "Yeah, it can be a shock. I think it's a shock factor. It's just-it's so-it's a new idea. New ideas are always met with adversity at first. Yeah, I think it takes time to settle in" (Staff FG). Participants predicted an Infant at Work program may be met with resistance until it had been tested in other, early-adopter departments first. One participant said, "I think starting this program is a good starting point. To get so you can have a department who wants to do it. And then you can figure out what works, doesn't work, and then [other] departments can opt-in" (Staff FG). Further, one participant commented on the diffusion of the program once piloted, saying, "I think it would require a certain amount of buy-in. Then once enough

TABLE 3 Focus group participant demographics

	Focus groups n = 22
Gender	
Male	5 (22.73%)
Female	16 (72.73%)
Nonbinary	1 (4.54%)
Age (years)	
Mean age	32.59 ± 3.75
Median age	32.5
Race/ethnicity	
White	17 (77.27%)
Hispanic or Latino	2 (9.09%)
Black or African American	2 (9.09%)
Native American or American Indian	1 (4.54%)
Educational attainment	
College	4 (18.18%)
Some graduate education	0 (0%)
Graduate school	18 (81.82%)
Employment status	
Staff	8 (36.36%)
Faculty	7 (31.82%)
Postdoctoral fellow	4 (18.18%)
Graduate student	3 (13.64%)
College affiliation	
College of Agriculture	2 (9.09%)
College of Engineering	2 (9.09%)
College of Liberal Arts	6 (27.27%)
School of Management	1 (4.54%)
Polytechnic Institute	2 (9.09%)
College of Science	3 (13.64%)
Information Technology at Purdue (ITaP)	1 (4.54%)
Student life	2 (9.09%)
Research partnerships	1 (4.54%)
Household income	
$20 000–49 999	5 (22.73%)
$50 000–149 000	8 (36.35%)
$150 000–199 999	3 (13.64%)
$200 00 or more	2 (9.09%)
Relationship status	
Single	2 (9.09%)
Married	18 (81.82%)
Divorce	1 (4.54%)
Children in household (under 18)	
0	1 (4.54%)
1	13 (59.09%)

(Continues)

TABLE 3 (Continued)

	Focus groups n = 22
2	4 (18.18%)
3	2 (9.09%)
4	1 (4.54%)
Adults in household	
1	1 (4.54%)
2	16 (72.27%)
Recent childbirth	
Does not have child	1 (4.54%)
Less than 6 months ago	1 (4.54%)
Less than a year ago	4 (18.18%)
1–2 years ago	13 (59.09%)
2–3 years ago	1 (4.54%)
Over 3 years ago	1 (4.54%)

Note: Data represented as n (%) or M ± SD. Items that do not add up to 100% represent missing data.

Abbreviation: SD, standard deviation.

people are doing it then [they would participate]" (Staff FG). Ultimately, participants agreed the best way to gauge support and placate hesitancy would be to make "a strong evidence-based argument about why it's the right thing to do" (P109). Thus, trying an Infant at Work program on a small scale and then broadly disseminating the evidence-based results is important for wider adoption.

3.2.2 | Inclusivity

To ensure an Infant at Work program can meet diverse needs, it must be accessible to all employees. One participant emphasized, "we need to make sure that it was inclusive. And that people at different levels could also take advantage of it" (Faculty FG). Other interview participants highlighted the risk of increasing disparities among employees based on work environment eligibility, with one participant saying,

> If faculty are allowed to do this, and staff are not, it could increase disparities between people … in positions where they're serving food in the dining courts and cleaning the dorms and stuff. Those people probably can't bring their infants to work. So that's yet another privilege they won't get. (P110)

An interview participant with experience in the dining court agreed saying, "I'm not opposed to [the program] in principle. I just think it would have to be job-specific" (P132). One participant highlighted differences in participation to increase

TABLE 4 Interview participant demographics

	Interviews n = 10
Gender	
Male	3 (30%)
Female	6 (60%)
Age (years)	
Mean age	53.33 ± 9.01
Median age	55
Race/ethnicity	
White	8 (80%)
Native American or American Indian	1 (10%)
Asian or Asian American	1 (10%)
Educational attainment	
Some graduate education	2 (20%)
Graduate school	8 (80%)
Employment status	
Staff	7 (70%)
Faculty	3 (30%)
Years employed at Purdue University	
Mean	15.84 ± 13.82
Median	10
Years employed in current role	
Mean	4.78 ± 5.54
Median	2
Household income	
Comfortable	8 (80%)
Just enough to make ends meet	1 (10%)
Children in household (under 18)	
0	5 (50%)
1	2 (20%)
2	2 (20%)

Note: Data represented as n (%) or M ± SD. Items that do not add up to 100% reflect missing data.

Abbreviation: SD, standard deviation.

inclusivity, saying, "I think you know at a high level you'd want to afford everyone the opportunity that wants to engage in participating" (P108). This participant expanded by noting programs may not be a one-size-fits-all approach, "… you know how that looks for you, it might look different for me" (P108).

3.2.3 | Resources

Many participants expressed concerns if safe, private, and secure spaces for a child to stay were unavailable. To overcome this, one participant suggested: "[an] office space where the parents who had to bring their child to work that day could

work" (Student FG). Participants suggested modifications to the existing workspaces to make them more comfortable and convenient, suggesting: "You know, it would be nice to have all the buildings have a changing table accessible to them. Different places are difficult to find refrigerators, are difficult to find the nursing room, the lactation rooms" (P116). Another suggested a dedicated space for those who worked in community offices, so "they're not constantly distracted by their co-workers that are all walking by in their community office space." (Student FG). Overall, private, flexible workspaces with necessary amenities were a priority. In addition to dedicated physical space, participants noted the need of support for participating parents. One participant shared they would like a way to "contact the other [participants] that [are] in a similar situation where we have a child that is young" (Student FG), noting the interest in building the program beyond individualized accommodations. Some participants even considered a "support group" (Student FG) or "parent's group" (Student FG) as complementary to the program's scope. Development of a support system as part of an Infant at Work program may provide additional benefits parents can utilize to receive relevant information, achieve support, and feel balanced.

3.2.4 | Communication

To make an Infant at Work program successful, participants identified the need for clear communication between coworkers, participants, and employers about workplace expectations. One participant said, "I think before it launches, we have to engage those people in discussion and hear their exact concerns and think of meaningful and sincere ways to address them—not dismiss them, but to work with them to make them comfortable" (P111). Additionally, communication about expectations of productivity and responsibilities were identified as important. One participant explained their responsibilities changed without their supervisor consulting them. They said, "When I came back from maternity leave, my job description-like things had been chiseled away because I couldn't handle it all" (Staff FG). Another participant furthered this concern and said, "There needs to be a conversation about what your work will look like or maybe modifying your work in a certain way when, during that time period, where you care for infant. And I can imagine this [Infant at Work program] will open up the conversation" (P128). Therefore, communicated guidelines and workplace expectations are vital for buy-in to, and overall success of, an Infant at Work program.

3.2.5 | Flexible and tailored

Noting parental needs frequently change, many participants believed flexibility needed to be built into an Infant at Work

TABLE 5 Themes, subthemes, and exemplar quotes

Theme	Subtheme	Exemplar quotes Represented with Participant Interview ID (P1XX) or Focus Group ID (eg, Faculty FG)
Infant at Work program and policy scope	Trialability	"I think to maybe pilot it or to let it happen at the units that are comfortable, and then you know really keep track of the problems that it does or doesn't cause. And maybe even collect some data about everyone in the work environment where an infant was allowed to be. So [asking questions like] 'What was it like for the parent?', 'What was it like for the coworkers?' I believe the problems would be many fewer than people might imagine." (P110) "I would not be opposed to trying or piloting it. And I think that's what you have to do. I mean if we're going to implement that we have to have a group that's willing to pilot it." (P132)
	Inclusivity	"I almost think that the wording and the way they've described [Infant at Work programs] needs to be more inclusive for other things [besides just early childcare] so that you don't feel like it's singling you out as an individual who, like a subset of employees who would benefit from it … [or] to be stigmatizing to this group or point them out to say that oh like this will only benefit them." (Faculty FG) "When I think about a dining employee of mine, you couldn't have a baby out in the kitchen where you're frying hamburgers. So, I think there are definitely places where it could not work. And one of the things that I always have a conversation about people, or conversation with people about is that fair is not always equal." (P132)
	Resources	"I also want to point out that the special place needs also to be good. And sometimes, I mean you know we were trying to get a lactation space, but sometimes my experience in some other places was that the lactation space was very tiny at the corner of the building far away. So, I think if there is an option for individual space or an offer for individual space, I think that that space needs to be good and big enough." (P128) "… some type of area where they could excuse themselves, go, you know, comfort their child, feed their child, whatever, or just settle them down." (P112) "Having that community that advocated for us, was very helpful. So not only space, but also the community that we can share, and we can advocate for each other. I think if this program is to be instituted at Purdue University, it needs to have that advocacy component reaching the parents' community and the administration. So, it's not only—'Okay, we're here now, caring for you', but they need to be a continuous advocate for conversations that need to happen [in the future]." (P128)
	Communication	"I've had to come in and say, 'Okay, I just need to not, like not go in the classroom, because your child is really upset and you're not soothing them and it's not helpful'. And so those are hard conversations to have. And how do you coach administration to have those hard conversations? I want a parent to be able to know if we're having a meeting and baby's crying, please walk out, that's okay with me or no, you need to stay, and we'll just wait for baby to stop crying." (P116) "I don't expect to have guidelines to deal with all these little edge cases but I would appreciate having some other manner of communicating [with] somebody to work something out." (Student FG)
	Flexible and tailored	"So you didn't feel like you're gonna make this huge change in the moment … You can always change your mind at four months-five months." (Staff FG) "The ability of employees to maybe job share or shift from one set of responsibilities to another." (P109)
Employee and employer benefits	Easier transition back to work	"… how much energy we would save to be able to focus on a task at work if we don't have to run around in the morning trying to get care for baby and then go?" (P128) "When you decrease anxiety and worry, you have a more effective employee." (P112) "There's a center that's closing. And so, it's a problem of priorities for the university. And the problem with the daycare center on campus is that there isn't the facilities and the money to support another entity. They're really expensive." (Faculty FG)
	Recruitment for future employees and students	"If you could just support people through that relatively short period when they have young children, they will be so loyal and do so much for the university forevermore." (P110)

(Continues)

TABLE 5 (Continued)

Theme	Subtheme	Exemplar quotes Represented with Participant Interview ID (P1XX) or Focus Group ID (eg, Faculty FG)
Workplace concerns	Workplace disruptions	"I don't know. I share a pretty kind of … we're not gonna call it small…but it's tiny office. And I feel like my officemate would not appreciate it." (Staff FG) "I also think another, like a bigger problem than the parent being distracted by the baby, might be everybody else being distracted by the baby. Because people just love babies, you know?" (P110)
	Infant safety	"… there are people that are just in spaces or doing activities that are not compatible with watching a child at the same time." (P111) "You know not every single building that we have is really a place an infant ought to be. I'm thinking, for example, bringing an infant into a lab environment can be problematic from an occupational safety perspective." (P109)

program for them to adopt it. The program must "have the flexibility to say—like you try it for a week and you say, 'Yeah this is not working'" (Staff FG). Participants also desired a personalized program. One participant stated, "Maybe you get some flex time to work from home, maybe it's like you just have the baby for a few hours and then you take them to daycare" (Staff FG). Additionally, participants said an Infant at Work program would help "buy you a little bit more time to get them into someplace" (Student FG) and continued to say "just even having that infant coming to work with you like that extra time would be valuable too" (Student FG).

3.3 | "There's such a shortage in childcare": Employee and employer benefits

3.3.1 | Easier transition back to work

Many participants experienced emotional distress when transitioning back to work. One participant said, "For me, personally, there is a lot of worry, and a lot of longing, and a lot of sadness when I could not have that [child] bonding time" (P128) while another participant said, "My son was eight months old when I put him in childcare and it felt better [because] I could go down [to an on-campus building] and see [him] so it was less anxiety-provoking" (Faculty FG). While the first participant had limited bonding time with their child, the second participant had more of this crucial time because they were able to utilize the on-campus childcare facility. Having closer and prolonged contact can ease parental anxiety and increase bonding time. Thus, an Infant at Work program may increase the productivity of participants in the workplace by reducing stressful experiences.

Implementing an Infant at Work program may facilitate smoother transitions by addressing other childcare concerns. One participant recalled their struggle returning to work, highlighting the difficulty in finding childcare, "I had to take a month off of work, while a waitlist opened elsewhere" (Staff FG), suggesting an Infant at Work program could be

used while childcare waitlist spots became available. Others noted a program like this could help "since there's such a shortage in childcare" (Staff FG) in some university settings. Participants expressed an Infant at Work program would help the university as it may not need to invest in more daycare centers to account for the current availability shortage. Similarly, participants agreed an Infant at Work program would help program users save money. One administrator remarked, "it certainly would be a financial benefit for families with infants" (P109). Easing the costs of childcare was a common desire to make the transition back to work easier and could also be a selling point of an Infant at Work program.

3.3.2 | Recruitment for future employees and students

Participants expressed that an innovative and supportive approach to supporting parents with young children would attract future candidates to the university. One participant said,

> [An Infant at Work program] is a good recruitment tool. We just had our prospective grad student visit and several students talked to me at length about support for having babies, and what the department would think and whether it would be okay (Faculty FG).

In addition to attracting new candidates, participants noted that an enhanced family-friendly work environment would contribute to employees' loyalty to the university. One participant said,

> I feel like it would be a way for Indiana, to keep some of its prime people who are, again, young people who are wanting to start a family and would see Purdue as an innovative employer. To me, it's kind of flipping that switch and saying, "This is the benefit of doing this,

maybe not even just looking at the benefit to the actual employee but the benefit to Purdue as an employer." (P132)

Participants felt leveraging an Infant at Work program to accommodate work/life balance would enhance opportunities to effectively attract and retain employees, creating a competitive edge.

3.4 | "I would be so distracted": Workplace concerns

3.4.1 | Workplace disruptions

Several participants expressed concern over workplace disruptions that infants could cause in the workplace. Participants considered how coworkers would respond, with one stating, "If the infant is crying all the time, or whatever—and our walls between offices are not thick—and so if it is a problem for faculty, that's an issue" (P111). While some thought it would be well received, others were worried about disrupting their coworkers. Disruptions to both the parent and coworkers were perceived to affect productivity, "Overall, people would be less productive because they're caring for their child and, like, if you're trying to multitask, you're doing a crappy job at both tasks" (Student FG). An administrator agreed by saying "It's not acceptable to lower expectations of work performance. Salary isn't changing, student needs aren't changing, obligations made to other professional organizations or individuals aren't changing. You do have a job. So that would have to be maintained" (P111).

3.4.2 | Infant safety

Another concern that added to participants' hesitancy to support program adoption was whether or not infants would be safe on the university campus. One participant noted certain employees may be unable to enroll in such a program, "You know, a groundskeeper on campus, what are they going to do, right? They're out riding a lawnmower all of the time. So that's just not practical" (P111). The conversation continued to build on liability considerations, "Anybody on campus—legally on campus—is a potential liability. And if anything were to happen that's a concern" (P111). Thus, equality and safety and liability concerns must be addressed to implement an Infant at Work program.

4 | DISCUSSION

This study identified the ecological factors affecting implementation of an Infant at Work program in a university

setting. Three themes emerged, including (i) program and policy scope, (ii) employee and employer benefits, and (iii) workplace concerns. University employees and leaders participated and outlined their ideal Infant at Work program, which promoted flexibility, communication, inclusion, and trialability. They also agreed that an effective Infant at Work program would facilitate easy transitions back to work and future recruitment of employees. Still, participants identified infant safety and coworker sensitivity as notable barriers to consider before wider implementation.

Prior research demonstrates Infant at Work programs effectively expanded flexibility for parents.[6,10] In this study, participants responded positively to this program, regardless of prior exposure. The need for flexibility was consistently expressed, notably the incorporation into all parts of the program to ensure efficacy. Participants identified enrollment flexibility and working from home as key components to increase job satisfaction and reduce stress.[36] Employers can also benefit from this flexibility via increased employee commitment and retention.[36] The literature and study participants further agreed that communication fosters relationships, prevents and resolves conflicts, improves productivity, and promotes team building, creating a positive work environment.[25] Additionally, participants expressed the need for support and advocacy, which can decrease stress, improve cohesion, and create additional resources.[37] FG participants corroborated that assistance with work/life balance would increase work productivity and feel supported by employers. To further support employees, modifying the existing work environment to make it more family-friendly would positively impact well-being.[32,33,38] All of these components would be valuable in addressing many of the health, wellness, and socioeconomic concerns parents and employers have.

The literature, employee, and administrator participants agreed that an Infant at Work program would facilitate effective transitions back to work. Many parents experience difficulties maintaining work/life balance in the postpartum period.[38] Participants corroborated this sentiment, highlighting prominent emotional and logistical challenges of this transition. The literature and participants emphasized how an Infant at Work program might reduce the psychosocial and socioeconomic stress stemming from finding and affording childcare, negativity from coworkers, and/or separation discomfort. In addition to these benefits, Sheppard[39] posits that family-friendly programs are valuable in drawing in new employees and maintaining employment if they have children. Similarly, the participants indicated having an innovative program, like an Infant at Work program, would attract future faculty, staff, and graduate student candidates. The university could leverage these facilitators in negotiations to implement this type of program, as the benefit for parents and the university system is evident.

Despite the benefits of implementing an Infant at Work program, barriers should be considered. Prior works (eg,

Lyonette and Baldaur[22] and Kemp[24]) and this research note workplace feasibility and coworker comfort as notable barriers to implementation. Additionally, the literature and participants agree that the integration of Infant at Work programs requires extensive workplace adjustments and provisions, including lactation rooms, infant changing areas, and refrigeration for breast milk.[25] For workplaces where employees have private offices, some of these costs can be alleviated, as parents could keep their infant in their office. For workplaces without individual offices, however, the potential for disruption is a concern. Existing literature suggests that the office environment plays an important role in implementation.[24] Further, disruption concerns can often be easily alleviated, as most infants are easily soothed by a parent or guardian nearby.[40]

Prior research and participants indicate that some employees and employers may resist the structural and cultural changes necessary for the presence of infants.[25] Disruption and reduced productivity are also major concerns; some employers worry employees who bring children to work may not adequately manage the dual responsibilities.[24-26] Participants raise this concern as well, especially in terms of distracted other employees because of noise or wanting to play with the infant. During the interviews, participants identified ways around these barriers. Some ideas include dedicated spaces and procedures, conversations between employees and employers about problem management, and normalizing that productivity will change during this transition. These ideas echo solutions built into existing Infant at Work programs.[7,9,28]

Previous studies expressed administrative support and workplace access are barriers to be addressed. As the literature indicates[19,41,42] and the FGs support, existing structures may be inadequate to support an Infant at Work program and consistency across the university is necessary for success. Additionally, participants are worried an Infant at Work program would increase disparities because some jobs are better suited than others. Infant safety was also a primary concern. Participants, especially administrators, highlight safety concerns for people working in grounds, dining, and custodial service units. Administrators acknowledge enrollment equity as a concern but not a reason to forgo the program. One potential solution is allowing flexible job titles while enrolled in the program. This would allow job expectations to be met through trading/sharing responsibilities with coworkers while in the program. Engagement with these concerns and barriers is imperative to successful implementation, as broad support from employers and employees is necessary to provide the associated benefits.

The results of this study highlight the need for flexible, family-friendly policies in university settings. There are several ways an Infant at Work program could meet different needs. One way is to allow parents to bring their children in a few days a week and then utilize daycare the other days. Another way the program could be used is on an as-needed basis, like if the infant had not yet enrolled in childcare services. Finally, the program could aid in the transition back to work as parents establish work/life balance. While many options could be beneficial, study results suggest that a pilot program that shows the practical application, benefits, and drawbacks is needed. This could allow administrators to make necessary adjustments for successful implementation across the entire university.

The qualitative nature of this study allowed for an in-depth understanding of academic professional's parenting experiences. This study was inclusive to all parents: men, women, and nonbinary individuals, as well as biological and adoptive parents. However, few participants are men, only three participants are single parents, only one parent is divorced, and only one participant is nonbinary. Additionally, no participants indicated experiencing postpartum depression or anxiety. Moreover, few participants were from underrepresented groups. Due to the lack of insight from low-income and minority parents, this study is not generalizable. As for academic institutions, this study provides novel information on family-friendly workplace policies but could still be expanded to be more inclusive of people with different backgrounds and parenting experiences. Future studies should include a greater diversity of perspectives to better capture the viewpoints of men, single parents, and parents in the LGBTQ + community. While administrators mentioned how COVID-19 may affect work/life balance, it was not discussed in the FGs, which leaves room for future research. Furthermore, parents expressed interest in social support structures like programs, social media, and in-person groups. Research on the impacts of these groups on parents' return to work could be beneficial to parents looking for support and provide incentives to create such programs. Participants were not explicitly asked about their previous participation in, or support of, an Infant at Work or similar program. Future research should explore these topics among current or past program participants and the administrators and leaders who implement and support such programs.

5 | CONCLUSIONS

University employees returning to work after welcoming an infant into the home have a range of experiences. Findings provide insight into the feasibility of family-friendly workplace policies within the study institution. Additionally, findings provide a framework to implement similar Infant at Work programs to improve employee work/life balance. Participants believe an Infant at Work program would help increase childcare options and facilitate positive work/life balance by integrating their home and work lives. Other

perceived benefits include promoting breastfeeding and bonding with the infant. However, there is a range of barriers to implementing an Infant at Work program, including cost, structure, and safety. Despite these barriers, participants highlighted a suite of solutions that create more family-friendly workspaces and facilitate program adoption. Some of these solutions include flexible job descriptions, dedicated procedures for workplace disruptions, and clear communication about workplace expectations. Findings from this study offer practical recommendations and strategies to implement family-friendly programs in the workplace, specifically in an academic environment.

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DISCLOSURE

Approval of the research protocol: The procedures and measurement tools for this study were approved by the Purdue University Institutional Review Board (IRB-2019-142). *Informed consent:* All participants gave signed informed consent. *Registry and the Registration No. of the study/Trial:* N/A. *Animal studies:* N/A. *Conflict of interest:* The authors report no conflicts of interest.

AUTHOR CONTRIBUTIONS

Andrea L. DeMaria and Laura Schwab-Reese conceptualized the study, collected the data, analyzed the data, and led manuscript drafting and editing. Madison Wierenga, Kilian Kelly, Sidney Smith, Anna Bohning, and Tessa Bauman all collected the data, analyzed the data, and participated in drafting and editing the manuscript.

DATA AVAILABILITY STATEMENT

The data and corresponding codebooks are available on request.

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REFERENCES

1. Dorenkamp I, Ruhle S. Work-life conflict, professional commitment, and job satisfaction among academics. *J High Educ*. 2019;90(1):56-84.
2. Ruhm CJ. Policies to assist parents with young children. *Future Child*. 2011;21(2):37-68.
3. Gatrell CJ, Burnett SB, Cooper CL, Sparrow P. Work-life balance and parenthood: a comparative review of definitions, equity and enrichment: work-life balance and parenthood. *Int J Manag Rev*. 2013;15(3):300-316.
4. Patrick SW, Henkhaus LE, Zickafoose JS, et al. Well-being of parents and children during the COVID-19 pandemic: a national survey. *Pediatrics*. 2020;146(4):e016824.
5. Janssen LHC, Kullberg M-LJ, Verkuil B. Does the COVID-19 pandemic impact parents' and adolescents' well-being? An EMA-study on daily affect and parenting. *PLoS One*. 2020;15:e0240962. https://doi.org/10.1371/journal.pone.0240962
6. Moquin C. Parenting in the workplace institute. 2018. https://www.babiesatwork.org. Accessed August 27, 2019
7. Washington State Department of Health. 2018. Infant at Work Program. https://www.doh.wa.gov/AboutUs/WorkatHealth/InfantatWorkProgram. Accessed August 27, 2019
8. Morain S, Lauren S, Makenna M, Eleanor S. Parental leave, lactation, and childcare policies at top US schools of public health. *Am J Public Health*. 2019;109(5):722-728.
9. Lanier R. The WSDOT Blog - Washington State Department of Transportation: Infant at Work program helps improve work-life balance. The WSDOT Blog - Washington State Department of Transportation. 2018. https://wsdotblog.blogspot.com/2018/04/infant-at-work-program-helps-improve.html. Accessed July 7, 2020.
10. Bruk-Lee V, Albert D, Stone KL. Lactation and the working woman: understanding the role of organizational factors, lactation support, and legal policy in promoting breastfeeding success. In: Spitzmueller C, Matthews RA, eds. *Research Perspectives on Work and the Transition to Motherhood*. Springer International Publishing; 2016:217-239.
11. Tsai S-Y. Impact of a breastfeeding-friendly workplace on an employed mother's intention to continue breastfeeding after returning to work. *Breastfeed Med*. 2013;8(2):210-216.
12. Tsai S-Y. Employee perception of breastfeeding-friendly support and benefits of breastfeeding as a predictor of intention to use breast-pumping breaks after returning to work among employed mothers. *Breastfeed Med*. 2014;9(1):16-23.
13. Jenkin M. Babies at work: will onsite childcare become standard in offices? The Guardian. 2016. https://www.theguardian.com/sustainable-business/2016/jan/13/babies-at-work-onsite-childcare-office-goldman-sachs-addison-lee. Accessed December 28, 2020.
14. Trautner T. Child care in the workplace. MSU extension. 2019. https://www.canr.msu.edu/news/child_care_in_the_workplace. Accessed April 22, 2020.
15. Bernstein R. After a baby, 28% of new parents leave full-time STEM work. Science | AAAS. 2019. https://www.sciencemag.org/careers/2019/02/after-baby-28-new-parents-leave-full-time-stem-work. Accessed December 28, 2020.
16. Poduval J, Poduval M. Working mothers: how much working, how much mothers, and where is the womanhood? *Mens Sana Monogr*. 2009;7(1):63-79.
17. Department of Human Resources. Infants at Work. https://humanresources.vermont.gov/labor-relations/labor-relations-policies/infants-work. Accessed August 27, 2019.
18. Holst E. Taking your baby to work. *Ill Times*. May 9, 2019. https://www.illinoistimes.com/springfield/taking-your-baby-to-work/Content?oid=11481850. Accessed December 28, 2020.
19. Jang SJ. The relationships of flexible work schedules, workplace support, supervisory support, work-life balance, and the well-being of working parents. *J Soc Serv Res*. 2009;35(2):93-104.

20. Sarita J. Take your baby to work. New York Times. 2017. https://www.nytimes.com/2017/04/20/opinion/sunday/take-your-baby-to-work.html?_r=0. Accessed December 28, 2020.

21. Winegar R, Johnson A. Do workplace policies influence a woman's decision to breastfeed? *Nurse Pract*. 2017;42(4):34-39.

22. Lyonette C, Baldaur B. Family friendly working policies and practices: motivations, influences and impacts for employers. Major Projects Knowledge Hub. 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/840061/Warwick_Final_Report_1610.pdf. Accessed March 4, 2020.

23. Association of State Public Health Nutritionists (ASPHN). Babies in the workplace policy brief. 2013. https://asphn.org/wp-content/uploads/2017/10/2013-Babies-in-the-Workplace.pdf. Accessed December 28, 2020.

24. Kemp L. Please don't bring your baby to work. HuffPost UK. 2012. https://www.huffingtonpost.co.uk/2012/01/31/please-don-t-bring-your-baby-to-work_n_7388702.html. Accessed September 3, 2019.

25. Bettinelli ME. Breastfeeding policies and breastfeeding support programs in the mother's workplace. *J Matern Fetal Neonatal Med*. 2012;25(suppl 4):73-74.

26. Gaddis G. Bringing babies to work is good business. Forbes. 2013. https://www.forbes.com/sites/gaygaddis/2013/06/27/babies-at-work-works/. Accessed August 27, 2019.

27. Nevada's Infant-at-Work Program. 2016. Babies in the Workplace. https://www.astho.org/Maternal-and-Child-Health/Nevada-Infants-at-Work/. Accessed December 28, 2020.

28. Rogers E. *Diffusion of Innovations*. 5th edn. Free Press; 2003.

29. Dearing JW. Improving the state of health programming by using diffusion theory. *J Health Commun*. 2004;9(suppl 1):21-36. https://doi.org/10.1080/10810730490271502

30. CDC. The social-ecological model: a framework for prevention |Violence Prevention|Injury Center|CDC. 2020. https://www.CDC.gov/violenceprevention/publichealthissue/social-ecologicalmodel.html. Accessed September 10, 2020.

31. Schochet L. The child care crisis is keeping women out of the workforce. Center for American Progress. 2019. https://www.americanprogress.org/issues/early-childhood/reports/2019/03/28/467488/child-care-crisis-keeping-women-workforce/. Accessed September 6, 2019.

32. Lester J. Cultures of work–life balance in higher education: a case of fragmentation. *J Divers High Educ*. 2015;8(3):139-156.

33. Sullivan B, Hollenshead C, Smith G. Developing and implementing work-family policies for faculty. *Academe*. 2004;90(6):24-27.

34. Drago R, Colbeck C, Stauffer KD, et al. Bias against caregiving. *Academe*. 2005;91(5):22-25.

35. Bai YK, Wunderlich SM, Weinstock M. Employers' readiness for the mother-friendly workplace: an elicitation study. *Matern Child Nutr*. 2012;8(4):483-491.

36. Smith EF, Gilmer DO, Stockdale MS. The importance of culture and support for workplace flexibility: an ecological framework for understanding flexibility support structures. *Bus Horiz*. 2019;62(5):557-566.

37. Solomon M, Pistrang N, Barker C. The benefits of mutual support groups for parents of children with disabilities. *Am J Community Psychol*. 2001;29(1):113-132.

38. Skouteris H, McNaught S, Dissanayake C. Mothers' transition back to work and infants' transition to child care: does work-based child care make a difference? *Child Care Pract*. 2007;13(1):33-47.

39. Sheppard G. Work-life balance programs to improve employee performance. 2016. https://scholarworks.waldenu.edu/dissertations/2058/. Accessed December 28, 2020.

40. Parenting in the workplace institute. 2019. https://www.babiesatwork.org. Accessed March 14, 2019.

41. Bohlmann C. Supporting employees with caregiving responsibilities. In: Burke RJ, Richardsen AM, eds. *Creating Psychologically Healthy Workplaces*. Edward Elgar Publishing; 2019:431-451.

42. Secret M, Sprang G. The effects of family-friendly workplace environments on work-family stress of employed parents. *J Soc Serv Res*. 2002;28(2):21-45.