Parenting While in Training: A Comprehensive Needs Assessment of Residents and Fellows

Kirti Magudia, MD, PhD*
Thomas S. C. Ng, MD, PhD*
Alexander G. Bick, MD, PhD
Megan A. Koster, MD, PharmD
Camden Bay, PhD
Kathryn M. Rexrode, MD, MPH
Stacy E. Smith, MD**
Debra F. Weinstein, MD**

ABSTRACT

Background Parenting issues can affect physicians' choice of specialty or subspecialty, as well as their selection of individual training programs, because of the distinctive challenges facing residents and fellows with children. Specific information about how residents perceive these challenges is limited.

Objective We sought to better understand the challenges associated with parenting during residency and fellowship training in order to inform policy and research.

Methods In 2017, a voluntary online questionnaire was distributed to all 2214 Partners HealthCare graduate medical education trainees across 285 training programs. The survey queried attitudes of and about trainees with children and assessed needs and experiences related to parental leave, lactation, and childcare. Responses were compared between subgroups, including gender, surgical versus nonsurgical specialty, parental status, and whether the respondent was planning to become a parent.

Results A total of 578 trainees (26%) responded to the questionnaire. Of these, 195 (34%) became parents during training. An additional 298 (52%) planned to become parents during training. Respondents overwhelmingly agreed that their institution should support trainees with children (95%) and that doing so is important for trainee wellness (98%). However, 25% felt that trainees with children burden trainees without children. Childcare access, affordability, and availability for sufficient hours were identified as key challenges, along with issues related to parental leave, lactation facilities, and effect on peers.

Conclusions This survey highlights trainees' perspectives about parenting during their clinical training, signaling parental leave, lactation facilities, and childcare access and affordability as particular challenges and potential targets for future interventions.

Introduction

Many physicians are or become parents during their clinical training, with important implications for work-life balance, burnout, and career development.[1,2] The proportion of graduate medical education (GME) trainees who are parents is not tracked, but an Association of American Medical Colleges survey indicated that 8% of graduating medical students have children. Furthermore, the age (18% > 29 years) and marital status (25% partnered) of these medical students implied that considerably more of them will become parents during residency or fellowship.[3] Experts and prior research have reported that stressors facing trainees with children deserve greater attention from GME leaders.[4–6]

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*Co-first authors, **Co-senior authors

Editor's Note: The online version of this article contains the questionnaire used in the study, a breakdown of respondent training year and specialty compared to overall Partners graduate medical education population, reasons contributing to decisions not to have children during training, comparisons for agreement that institutions should support trainees with children, parental leave survey results, lactation survey results, childcare survey results, ideal daycare hours, and participant financial characteristics.

Parenting-related considerations can affect specialty and program choice as well as the training experience, including the possibility of extending the duration of training.[7–10] However, trainee perceptions about parenting challenges and resources are not completely understood. Most studies examining trainees with children focus on 1 specialty[9,11–16] or examine 1 aspect of parenting—parental leave,[17–20] childcare,[1] or lactation.[21] Information about the needs of trainees with children across specialties is needed to inform institutional and national policies.

The aims of this study were to better understand trainee attitudes, plans, and experiences relating to parenting overall, and as related to gender, specialty, and other individual characteristics in greater detail than previously available.

Methods

We conducted a needs assessment based on trainee perceptions and experiences of parental leave, lactation, and childcare across all specialties and postgraduate years (PGYs) of training at 6 Partners HealthCare system hospitals, including Brigham & Women's Hospital (BWH) and Massachusetts General Hospital (MGH). At the time of the survey, these institutions

provided childbearing mothers with 8 weeks of paid leave, but paid leave for nonchildbearing parents was at each program's discretion.

The survey tool was developed by the majority of authors (K.M., T.S.C.N., A.G.B., M.A.K., S.E.S., D.F.W.) and included 18 to 67 survey items depending on gender, parenting experience and plans, and student loan status of the respondent (provided as online supplemental material). Thirty-four questions were multiple choice, 27 were Likert-type scale, 2 were numerical fill-ins, and 4 were open-ended.

The survey was piloted with 25 trainees, and minor changes were made to the wording of questions to improve clarity based on feedback. The survey took an average of 5 minutes to complete. No further testing for validity was done. Trainees were contacted via e-mail on March 15, 2017, seeking anonymous, voluntary responses to an online survey without a

What was known and gap
Residents and fellows with children face unique challenges that can affect a physician's choice in specialty or training program, but information about how these trainees perceive the challenges they face is limited.

What is new
A voluntary questionnaire that queried attitudes of and about trainees with children and assessed needs and experiences related to parental leave.

Limitations
The survey was conducted in one multi-hospital healthcare system, limiting generalizability, and was not tested for validity evidence.

Bottom line
Parental leave, lactation facilities, and childcare access and affordability are important challenges faced by trainees with children and potential targets for future interventions.

TABLE
Respondent Characteristics and Family Status—General Demographics

Variable	Total Respondents, No. (%)	All GME Trainees, No. (%)
Gender (n = 578)		
Female	352 (61)	990 (45)
Male	226 (39)	1224 (55)
Age, y, (n = 517)		
25–29	155 (30)	642 (29)
30–34	282 (55)	1218 (55)
≥ 35	80 (16)	332 (15)
Institution (n = 514)		
BWH	199 (39)	952 (43)
MGH	206 (40)	1173 (53)
Combined BWH/MGH program	94 (18)	N/A[a]
Other Partners hospital sites	15 (3)	73 (3)
Trainee type (n = 517)		
Resident	335 (65)	1483 (67)
Fellow	182 (35)	708 (32)
Training year (n = 517)		
PGY-1–2	195 (38)	1483 (67)
PGY-3–5	232 (45)	1114 (50)
PGY-6+	90 (17)	297 (13)
Surgical versus nonsurgical specialties (n = 497)		
Surgical	83 (17)	483 (22)
Nonsurgical	414 (83)	1731 (78)
Relationship status (n = 512)		
Single	66 (13)	
Married	348 (70)	
In a long-term relationship	98 (19)	
Trainees with children (n = 578)		
No	383 (66)	
Yes	195 (34)	

TABLE
Respondent Characteristics and Family Status—Among Trainees With Children (continued)

Variable	Total Respondents, No. (%)
When they became parents (n = 195)	
Before training	57 (29 of all parents)
During training	167 (86 of all parents)
No. of children (n = 195)	
1	120 (62)
2	56 (29)
3	15 (8)
4+	4 (2)
Age of children (nonexclusive), (n = 195)	
< 1	86 (44 of all parents)
1–2	91 (47 of all parents)
3–5	55 (28 of all parents)
6–12	28 (14 of all parents)
≥ 13	5 (3 of all parents)
Trainees who plan to have/adopt children during training (n = 576)	
Yes	298 (52)
No	158 (27)
Not sure	120 (21)

Abbreviations: GME, graduate medical education; BWH, Brigham & Women's Hospital; MGH, Massachusetts General Hospital; N/A, not applicable; PGY, postgraduate year.
[a] Data provided by GME-assigned training programs to primary sponsoring institution.
Note: GME population as of March 15, 2017, is n = 2214.

participation incentive (LimeSurvey GmbH, Hamburg, Germany). All program directors were contacted to remind their trainees about the survey 4 weeks later. The survey closed after 8 weeks.

Descriptive statistics were determined with RStudio (RStudio Inc, Boston, MA) and Microsoft Excel (Microsoft Corp, Redmond, WA). Respondent characteristics used for subsequent preplanned analysis include gender (male, female, or other); trainee type (resident or fellow); specialty (surgical [general surgery, neurological surgery, obstetrics and gynecology, oral and maxillofacial surgery, orthopedic surgery, plastic surgery, thoracic surgery, and urology] or nonsurgical [all others]); whether trainees were parents (yes, no); whether trainees were planning to have children (yes, no, or not sure); and relationship status (single, married, in a long-term relationship, or divorced). MATLAB and Prism were used for further statistical analysis: the Mann-Whitney *U* test was used for parental leave and Likert-scale comparisons, and Pearson's chi-square test was used for the remaining comparisons. *P* values less than .05 were considered statistically significant.

Respondents were asked to indicate the amount paid in posttax dollars for monthly childcare (< $1,500: $750; $1,500–$3,000: $2,250; $3,000–$4,500: $3,750; > $4,500: $5,250). We then calculated this cost as a percentage of pretax salary using institutional salary metrics (provided as online supplemental material).

Operating hours for daycare centers within 3 miles of BWH and MGH were determined in August 2018 via website, e-mail, or telephone.

The Partners Institutional Review Board deemed this study exempt.

Results

A total of 578 of 2214 eligible subjects (26%) responded. Respondents were similar to the survey population with regard to PGY, specialty, age, institution, and trainee type, although women were moderately overrepresented (TABLE). All training years and specialties were represented (provided as online supplemental material).

Most respondents were partnered; one-third had children (TABLE). Most trainees with children became parents during training and had 1 child under 2 years old. Twenty-seven percent (158 of 576) of respondents did not plan to have children during training, and cited work hours, focus on career, financial constraints, and childcare costs as factors (TABLE; more information provided as online supplemental material).

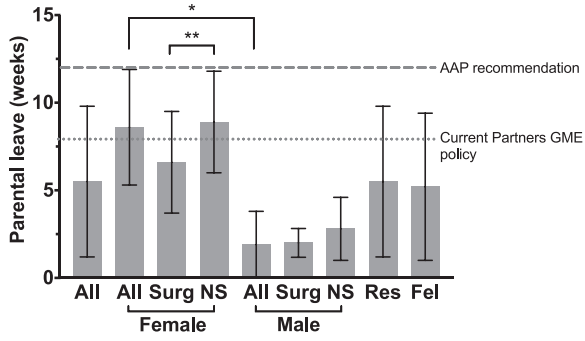

FIGURE 1
Parental Leave Taken by Trainees (n = 159)

Abbreviations: GME, graduate medical education; Surg, surgical specialties; NS, nonsurgical specialties; Res, resident; Fel, fellow.

Note: For reference, lines delineating the 12 weeks' leave (as advocated by the American Academy of Pediatrics [AAP], dashed line) and 8 weeks (paid parental leave allowed by Partners HealthCare as of September 2018, dotted line) are indicated (*$P < .001$, **$P = .040$).

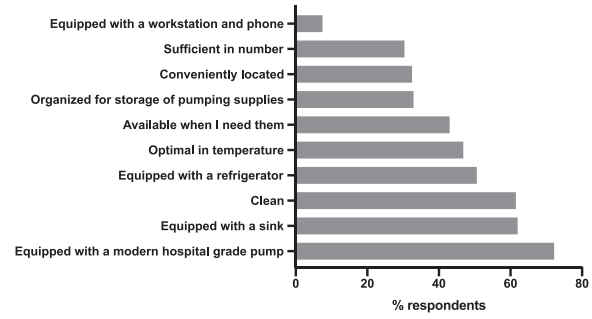

FIGURE 2
Lactation Room Amenities (n = 79)

General Attitudes

Trainees overwhelmingly agreed that their institutions should support trainees with children (95%, 546 of 574) and considered it important for trainee wellness (98%, 561 of 574). Trainees with children, partnered respondents, and women were more likely to agree; respondents not planning to have children during training agreed less (provided as online supplemental material). Twenty-five percent (141 of 574) of respondents indicated that trainees with children burden trainees without children. Surgical trainees were more likely to agree than nonsurgical trainees (mean ± SE/mean ranks = 2.9 ± 0.2/285.9 versus 2.5 ± 0.05/243.6; $U = 9388$; $P = .038$), as were nonparents (mean ± SE/mean ranks = 2.7 ± 0.06/303.8 versus 2.3 ± 0.08/255.3 for others; $U = 30\,554$; $P < .001$).

Parental Leave

Approximately one-third of respondents knew how to access parental leave policies for their program (37%, 200 of 537) or institution (32%, 170 of 537). Women took significantly more parental leave (5.5 weeks, SD = 4.3) than men (1.9 weeks; SD = 1.9; $P < .001$; FIGURE 1). Female surgical trainees took significantly less leave (6.6 weeks, SD = 2.9) than female nonsurgical trainees (8.9 weeks; SD = 2.9; $P = .040$). There was no significant difference in overall satisfaction with parental leave by gender, resident versus fellow, or surgical versus nonsurgical specialties (provided as online supplemental material).

Lactation

Eighty-one percent (140 of 172) of female trainees intending to have a child during training planned to breastfeed, and 85% (81 of 95) of those who had a child during training did breastfeed. Most breastfeeding trainees felt supported (provided as online supplemental material). Additional responses highlighted the potential for improvement in lactation facilities (FIGURE 2).

Childcare

Sixty-three percent (117 of 187) of respondents reported difficulty in arranging childcare and relied on multiple sources for childcare (provided as online supplemental material). Approximately 10% (18 of 190) reported using a daycare facility affiliated with their institution, with nonuse most often attributed to a long waitlist and convenience. Most desired extended and weekend daycare hours, which were not available locally (provided as online supplemental material).

The median proportion of pretax salary used for childcare in PGY-1 and PGY-2 was 43% (interquartile range 41%–71%) and decreased modestly with increasing PGY (FIGURE 3). Perceptions of financial strain were greater among trainees with children, despite reported higher household income and comparable student loan debt (provided as online supplemental material).

Discussion

The respondents in this study overwhelmingly agreed that teaching institutions should support trainees with children. The type of support needed can be informed by our findings: (1) a sizable minority feel trainees with children burden other trainees; (2) awareness of parental leave policies is limited; (3) lactation facilities are considered suboptimal; and, particularly, (4) childcare cost and access are seen as formidable obstacles.

Concern about trainees with children burdening other trainees was identified by Rangel et al[9] who found that 60% of survey participants reported a negative stigma associated with being pregnant as a surgical resident. This may reflect that parental leave results in

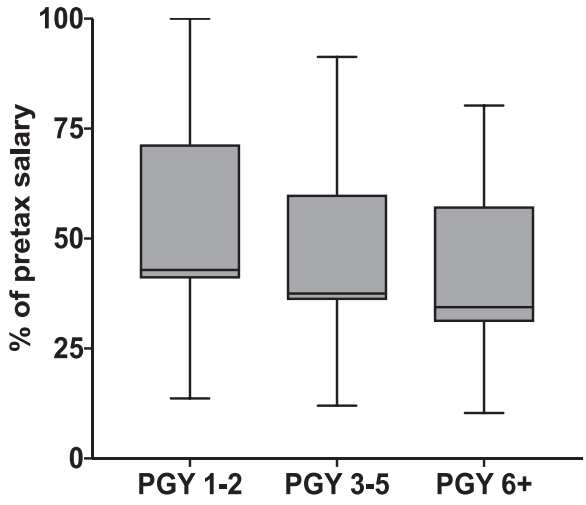

FIGURE 3
Cost of Childcare Relative to PGY Salary in Boston (n = 186)[a]

[a] Displayed as median with interquartile range.

Abbreviation: PGY, postgraduate year.

short staffing, with the remaining residents carrying an increased clinical load. It may also relate to a perceived stigmatization of pregnant trainees and trainees with children reported in surgery, and we found that female surgical trainees took less parental leave than female nonsurgical trainees. Institutions can address this by ensuring adequate coverage for trainees on leave.

GME leave policies vary widely across and within institutions.[4,17,19] Our finding that most trainees were unaware of their parental leave policy mirrors prior research[15] and underscores the need to more actively communicate these policies to facilitate family and career planning. With regard to lactation, these results indicate that trainees with children are strongly inclined toward breastfeeding and that specific features of lactation facilities beyond availability are important, especially when short parental leave, unpredictable pumping schedules, and long work hours make lactation challenging.[17,21,22]

Finally, this study highlights childcare cost as a critical issue as most respondents spent more than one-third of their pretax salary on childcare and, consistent with prior research,[23] parents reported more financial stress than nonparents. This is likely relevant even in lower-cost areas, since 39% of US medical students are graduating with at least $200,000 in educational debt.[3] Thus, some advocate for subsidizing trainees' childcare costs.[23] Respondents also reported a need for extended daycare hours, better aligned with GME work schedules, as has been previously reported.[1] Institutions that help trainees with children access and afford necessary childcare may be better positioned to recruit trainees.

These findings are limited in generalizability due to the low response rate (26%) from 2 hospitals in the same hospital system in a high-cost urban setting. Trainees with children or planning to have children may have been more likely to respond to the survey. Also, as the survey was not tested for validity evidence, respondents may not have interpreted questions as intended.

Since this survey was conducted, the GME parental leave policies and other parenting resources have changed at our institutions. We plan to periodically reassess the needs of trainees with children and will employ methods to enhance the response rate on future surveys.

Conclusions

This study provides new information on perspectives surrounding parental leave, lactation facilities, and childcare access and affordability for trainees with children, highlighting economic issues and current resource gaps.

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At the time of writing, **Kirti Magudia, MD, PhD*,** was a Resident, Department of Radiology, Brigham & Women's Hospital, Harvard Medical School, and is now a Research and Clinical Fellow, Department of Radiology and Biomedical Imaging, University of California, San Francisco; **Thomas S. C. Ng, MD, PhD*,** is a Clinical Fellow, Department of Radiology, Brigham & Women's Hospital, Harvard Medical School; **Alexander G. Bick, MD, PhD,** is a Resident, Department of Internal Medicine, Massachusetts General Hospital, Harvard Medical School; **Megan A. Koster, MD, PharmD,** is a Clinical Fellow, Department of Internal Medicine, Massachusetts General Hospital, Harvard Medical School; **Camden Bay, PhD,** is a Statistician, Department of Radiology, Brigham & Women's Hospital, Harvard Medical School; **Kathryn M. Rexrode, MD, MPH,** is Associate Professor, Department of Medicine, Brigham & Women's Hospital, Harvard Medical School, and Chief, Division of Women's Health, Department of Medicine, and Faculty Director, Office for Women's Careers, Center for Diversity and Inclusion, Brigham & Women's Hospital; **Stacy E. Smith, MD**,** is Chief and Distinguished Weissman Chair, Division of Musculoskeletal Imaging and Intervention, Assistant Director, Neil and Elise Wallace STRATUS Center for Medical Simulation, and Associate Professor, Department of Radiology, Brigham & Women's Hospital, Harvard Medical School; and **Debra F. Weinstein, MD**,** is Vice President for Graduate Medical Education, Partners HealthCare, and Associate Professor of Medicine, Massachusetts General Hospital, Harvard Medical School.

*Co-first authors, **Co-senior authors

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Corresponding author: Kirti Magudia, MD, PhD, University of California, San Francisco, Department of Radiology and Biomedical Imaging, 1700 4th Street, Room 102, San Francisco, CA 94158, kirti.magudia@ucsf.edu

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