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Fertility benefits: impact on job satisfaction, job retention and job decision making for female physicians and medical students: A cross-sectional survey

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Abstract

Background:

To evaluate physician and medical student satisfaction with their assisted reproductive technology (ART) and oocyte cryopreservation coverage and its impact on job satisfaction and career decision making.

Methods

We disseminated a national, online, cross-sectional survey conducted from October 2024-March 2025. We included US-based physicians and medical students, 18–44 years of age, English speaking, assigned female at birth, utilizing their employer or school insurance for ART or oocyte cryopreservation.

Results

Two hundred eighty-two people completed the screening questions and were eligible, 233 completed the survey (83% completion rate). Forty-five percent were dissatisfied with their employer fertility benefit and 67% agreed having comprehensive fertility benefits would improve job satisfaction. Nearly two-thirds agreed/strongly agreed that they value fertility coverage when evaluating job opportunities and 41% reported agreed/strongly agreed that fertility coverage would play a role in accepting or declining a job offer. Furthermore, over 90% of respondents believed oocyte cryopreservation should be included in fertility coverage. Compared to attending physicians, residents (aOR 3.09, 95% CI: 1.20–7.93) were more likely to report fertility coverage benefits impacting job decision making, as were those desiring childbearing (aOR 4.48, 95%CI: 1.90-10.56) compared to completed/did not desire childbearing, and those who considered oocyte cryopreservation but did not have adequate coverage (aOR: 3.65, 95%CI: 1.89–7.06).

Conclusions

In a nationwide sample of female physicians and medical students, satisfaction with employer-provided fertility coverage is low. Most respondents view fertility coverage as important to job satisfaction. In certain groups such as residents and those desiring childbearing, fertility benefit coverage, including oocyte cryopreservation coverage, can affect job decision making. Therefore, access to comprehensive fertility benefits can potentially aid in physician satisfaction and therefore recruitment and retention.

Background

Delayed childbearing has become increasingly common in the United States, particularly among physicians. Facing prolonged training and significant professional demands during their reproductive

years, physicians delay childbirth further, sometimes up to five years compared to the general population (1, 2). Female physicians are more likely to postpone pregnancy and to experience lower birth rates during training and early career stages; family physicians have comparable rates during residency but specialists continuing to show decreased rates until starting independent practice (2). As a result, the prevalence of infertility among female physicians hovers around 24%, compared to 13% the general population (1, 3, 4).

For most physicians, access to fertility evaluation, assisted reproductive technology (ART), and fertility preservation is provided through employer-sponsored health insurance, which remains the predominant source of health coverage in the United States (5). However, coverage for fertility treatment and oocyte cryopreservation is highly variable and frequently limited by lifetime spending caps, cycle restrictions, and exclusions. National surveys and available data indicate that employer-sponsored fertility benefits commonly have lifetime maximums that are well below the cost of multiple in vitro fertilization (IVF) cycles, which can cost up to $100,000 to achieve a live birth (4, 6). Available data also describes the lack of employer coverage for oocyte cryopreservation (4). This is also highly relevant as studies suggest that planned oocyte cryopreservation (OC) has emerged as particularly influential among medical trainees, with employer coverage for OC affecting residency ranking and specialty choice among medical students (7). One survey of medical students noted that 46% of female students and 24% of male students reported employer-sponsored OC would impact residency ranking decisions, and one-quarter of women indicated that coverage would affect their choice of medical specialty (7). The primary barrier to pursuing fertility preservation among medical trainees was noted to be the economic and time burden of ART and OC (3, 8).

Although trainees and physicians increasingly report valuing ART and oocyte cryopreservation benefits given the economic burden associated with reproductive care, the relationship between fertility benefit coverage, satisfaction with coverage, and physician job satisfaction remains incompletely understood. In addition, limited data exist regarding how employer-provided fertility coverage influences job selection, satisfaction, and retention among practicing physicians. Characterizing both satisfaction with fertility benefits and the factors associated with employment decision-making in this context has important implications for workforce recruitment, retention, and equity.

We conducted a national, cross-sectional survey of female physicians and medical students in the United States to evaluate satisfaction with employer-provided fertility benefits, perceptions of coverage adequacy, and the impact of ART and oocyte cryopreservation coverage on job satisfaction and career decision-making. Our primary aim was to describe the level of employer-provided fertility benefit coverage and satisfaction with those benefits, and to characterize patterns between coverage level and satisfaction with job and fertility benefits using descriptive analyses. The secondary aim was to describe respondent characteristics associated with reporting fertility benefits coverage influence job-decision making.

Methods

Respondents

Individuals were eligible if they were 18–44 years old, English speaking, assigned female at birth, and utilized their employer or school insurance. Respondents assigned male at birth, over age 44 or not currently a medical student, resident, fellow or attending physician were excluded.

Recruitment and Enrollment

Recruitment occurred via disseminated survey link through social media platforms (Instagram, Facebook and X). The post with a link to the survey was first shared through department social media accounts and respondents were encouraged to complete survey and share the link with other people in their network. Each individual reviewed a consent information sheet and indicated they consented to participate before the screening questions. The Washington University Institutional Review Board reviewed the study and deemed it exempt prior to recruitment.

Procedure

The web-based survey was written by the authors (Appendix A). Individuals reviewed an exempt information sheet and agreed to participate before proceeding to screening questions. Following the screening questions, respondents provided demographic information, and answered questions about their reproductive history and plans, fertility benefit coverage, satisfaction with their fertility coverage, and the impact of coverage on job satisfaction. We used five-point Likert items to ask about satisfaction with current fertility coverage, adequacy of fertility coverage, including oocyte cryopreservation in fertility coverage, and whether fertility coverage affects job satisfaction and selection.

Data Management and Analysis

We administered the survey using Research Electronic Data Capture (REDCap) hosted at Washington University (9, 10). For our primary aim, we used descriptive statistics to characterize respondent demographics, fertility benefits coverage, satisfaction with coverage, adequacy of coverage for current medical needs, and the impact of comprehensive fertility coverage on job satisfaction. For our secondary aim, we used univariate and backwards stepwise multivariable logistic regression with a threshold of $p < 0.10$ to identify respondent characteristics associated with reporting fertility coverage impacted job decision-making. For the outcome, we dichotomized the responses to “fertility coverage would play a role in my accepting or declining a job offer” into high impact (strongly agree/agree) and low impact (neither agree or disagree, disagree, strongly disagree). All statistical analyses were conducted using Stata SE Version 15.1 (StataCorp; College Station, TX, USA).

Results

Respondent Characteristics and Reproductive Plans

The survey was available from October 2024 to March 2025. A total of 282 respondents were eligible and 233 completed the survey (82.6% completion rate). All respondent characteristics can be found in Table 1. Briefly, respondents had a mean age of 34.6 ± 4.5 years, were predominantly White (83.7%) and non-Hispanic/Latina (91.4%). Approximately two-thirds of respondents were attending physicians (68.2%), and 61.4% desired childbearing. Approximately one-fourth reported an infertility diagnosis (27.9%), and 35.2% had considered oocyte cryopreservation but did not feel their coverage was adequate for the procedure.

Table 1
Respondent demographics

Demographic characteristic	**N = 233**
Age, years	34.6 ± 4.5, (25–44)
Race	
American Indian or Alaska Native	1 (0.4)
Asian	20 (8.6)
Black	6 (2.6)
White	195 (83.7)
More than one race	7 (3.0)
Prefer not to answer	4 (1.7)
Hispanic Ethnicity	
Yes	15 (6.4)
No	213 (91.4)
Prefer not to answer	5 (2.1)
Region	
Northeast	42 (18.0)
Midwest	95 (40.8)
Southeast	51 (21.9)
Southwest	18 (7.7)
West	27 (11.6)
Relationship Status	
Single	38 (16.3)
Married	177 (76.0)
Living with partner	18 (7.7)
LGBTQ	
Yes	22 (9.4)
No	211 (90.6)
Role	
Medical Student	12 (5.2)

Demographic characteristic	N = 233
Resident	50 (21.5)
Fellow	12 (5.2)
Attending	159 (68.2)
Practice setting	
Academic Center	137 (58.8)
Community Hospital	50 (21.5)
Private Practice	35 (15.0)
Other	11 (4.7)
Current reproductive plans	
Desires childbearing	143 (61.4)
Completed/does not desire childbearing	69 (29.6)
Unsure	21 (9.0)
Ever pregnant	
Yes	152 (65.2)
No	80 (34.3)
Prefer not to answer	1 (0.4)
Infertility diagnosis	
Yes	65 (27.9)
No	167 (71.7)
Prefer not to answer	1 (0.4)
Pursued fertility treatments without partner or oocyte cryopreservation	
Yes	30 (12.9)
No	203 (87.1)
Undergone treatment for infertility, egg freezing, etc	
Yes	71 (30.5)
No	162 (69.5)
Data are reported as mean ± SD, (min-max), and n (%)	

Fertility Benefit Coverage, Satisfaction and Beliefs

Fertility benefit coverage reported by respondents was heterogeneous (Table 2): 1.3% had complete coverage with no lifetime maximum, 23.3% had coverage with a dollar amount maximum, 5.2% had an IVF cycle maximum, and 41.2% had no coverage. Notably, 29.2% of respondents did not know their coverage status. Satisfaction with fertility coverage was low (44.6% were very dissatisfied/dissatisfied) and perceived adequacy of fertility coverage was heterogeneous (Fig. 1). The vast majority agreed that oocyte cryopreservation should be included in fertility coverage (93.6%), comprehensive coverage should be required for employer-sponsored health plans (92.3%) and comprehensive fertility benefits support diversity, equity, and inclusion (86.7%). Two-thirds of respondents strongly agreed/agreed that offering comprehensive fertility coverage would improve job satisfaction (Fig. 1).

Table 2
Respondents' reproductive snapshot, fertility benefit coverage, and job satisfaction

Fertility Benefit Coverage	**N = 233**
Resides in state with mandated fertility coverage	
Yes	18 (7.7)
No	146 (62.7)
I don't know	69 (29.6)
Level of employer provided fertility coverage	
Complete coverage, no lifetime maximums	3 (1.3)
Lifetime maximum to certain dollar amount	54 (23.3)
Lifetime maximum to certain number of IVF cycles	12 (5.2)
No coverage through employer	96 (41.2)
I don't know	68 (29.2)
Lifetime maximum dollar amount*	$20,000 (11,250 – 30,000)
Lifetime maximum IVF cycles	3.5 (3–4)
Data are presented as n (%) and median (IQR), numbers may not add to 100% due to rounding; *n = 54	

Respondent Characteristics & Job Decision Making

Forty-one percent of respondents strongly agreed/agreed fertility coverage would play a role in accepting or declining a job offer. Compared to attendings, residents were three times more likely to report fertility

coverage influenced their job decisions (aOR 3.09, 95%CI: 1.20–7.93, Table 3) and those desiring childbearing were more likely than those who had completed or did not desire childbearing (aOR 4.48, 95%CI: 1.90-10.56). Finally, respondents who had considered oocyte cryopreservation but did not feel they had adequate coverage were more likely to make job decisions based on fertility coverage (aOR 3.65, 95%CI: 1.89–7.06).

Table 3
Univariate and backwards stepwise multivariable logistic regressions identifying demographic factors associated with reporting high impact of fertility coverage benefit on job decision-making (N = 233)

Age (per year)	**OR (95% CI)**	**aOR (95% CI)**
	0.90 (0.85–0.96)	**1.10 (0.99–1.23)**
Role		
Medical student	**6.74 (1.75–25.96)**	4.95 (0.94–26.08)
Resident	**3.99 (2.05–7.79)**	**3.09 (1.20–7.93)**
Fellow	1.60 (0.49–5.30)	1.03 (0.26–4.04)
Attending	Ref.	Ref.
Childbearing		
Desires childbearing	**5.03 (2.53–9.99)**	**4.48 (1.90-10.56)**
Completed/does not desire childbearing	Ref.	Ref.
Unsure	1.35 (0.42–4.34)	1.29 (0.33–4.96)
Considered oocyte cryopreservation, did not have adequate coverage		
Agree	**4.74 (2.67–8.44)**	**3.65 (1.89–7.06)**
Neutral/disagree	Ref.	Ref.
OR, odds ratio; aOR, adjusted odds ratio, CI, confidence interval; bold indicates statistical significance; race, Hispanic ethnicity, region, relationship status, LGBTQ, practice setting, satisfaction with fertility coverage and adequacy of fertility coverage were dropped prior to the final model		

Discussion

Principal Findings

In this study, satisfaction with employer-provided fertility coverage among female physicians was low, with fewer than one-third of respondents reporting satisfaction with their current benefits. Satisfaction with fertility benefits closely corresponded with the comprehensiveness of coverage, and most

respondents reported that comprehensive fertility coverage would improve overall job satisfaction. In parallel, respondents consistently endorsed the importance of fertility benefits when evaluating employment opportunities, including near-universal agreement that oocyte cryopreservation should be included in fertility coverage and that comprehensive fertility benefits should be offered through employer-sponsored health plans.

Importantly, fertility coverage also emerged as a meaningful factor in employment decision-making. In adjusted analyses, resident physicians, those desiring childbearing, and those reporting less adequate oocyte cryopreservation coverage were more likely to report that fertility benefits had a high impact on job decision-making.

These findings underscore the relevance of comprehensive coverage design for early-career and reproductive-aged physicians. Importantly, employer-provided fertility benefits, including oocyte cryopreservation, influence not only satisfaction with coverage and work, but also how physicians evaluate and select employment opportunities, with salience among trainees and younger physicians. This likely reflects the impact of the financial burden associated with reproductive care and the professional demands of medical training during reproductive years.

Available literature establishes that physicians are delaying childbearing compared to non-physicians and experiencing higher rates of infertility compared to the general population (1–3, 11). One retrospective study of over 5,000 physicians demonstrated a median age at first childbirth of 32 years compared to 27 in non-physicians (2). Another survey of 1056 female physicians noted altered career trajectories to accommodate family planning, with 24.8% choosing a different specialty for family planning (3). While the available literature highlights the importance of how female physicians are disproportionately experiencing childbearing effects because of career choices, there is limited literature in evaluating specifically how fertility benefit satisfaction relates to job satisfaction and ultimately affects job selection. Our findings expand on available literature by focusing on the perceptions of employer-provided fertility benefits and its impact on career choices. Additionally, our findings that inadequate oocyte cryopreservation coverage aligned with current literature. One cross-sectional survey of 630 medical students found respondents were more likely to pursue oocyte cryopreservation if covered by employer and that women were more likely to have oocyte cryopreservation affect residency ranking (7). Our research adds to current literature by demonstrating that perception of adequacy of oocyte cryopreservation coverage is independently associated with a high impact on job decision making even after adjusting for potential confounders such as age and physician role.

Ultimately, our findings suggest that fertility benefit coverage may represent an underrecognized strategy for supporting physician well-being and strengthening physician recruitment and retention. This may be particularly relevant for medical centers in states without mandates requiring insurance coverage for assisted reproductive technology, where access may depend largely on the benefits selected by individual employers. Given the substantial representation of women in the physician workforce, the overlap between reproductive years and prolonged medical training, and the importance respondents

placed on fertility benefits when evaluating employment opportunities, academic institutions should consider comprehensive fertility coverage. This includes assisted reproductive technology and oocyte cryopreservation as an important component of physician benefits. Such coverage has the potential to reduce financial barriers to family building while also enhancing the attractiveness of institutions competing to recruit trainees and physicians. In the absence of state-mandated coverage, employer-sponsored fertility benefits therefore represent a tangible opportunity for medical centers to better support their workforce while addressing recruitment and retention priorities.

Strengths and Limitations

This survey had a high completion rate of 82.6% (233 of 282 participants) with participation from physicians nationwide. The infertility rate of the participants (27.9%) is consistent with prior estimates of the national average of female physician infertility. Most importantly this survey addresses a previously underexplored relationship between physician fertility benefit coverage and the role it plays in job satisfaction and job selection.

Regarding the weaknesses of this study, we acknowledge that there is lower representation of residents and medical students with them making up only 26% of respondents which does limit the generalizability of this data to physicians earlier in their training. There is also limited representation of minorities with 83.7% of respondents reporting being white. We also had a regional concentration of respondents to the Midwest, which may limit generalizability to regions with mandated fertility benefits coverage. Lastly, we also acknowledge self-selection bias, as participants who feel more strongly about this topic are more likely to start and complete the survey. This could result in overrepresentation of those who have a desire for improved coverage.

Future Directions

Future studies could include further investigating more longitudinal effects on fertility benefit coverage with measurable workforce outcomes such as job retention, promotion, and specialty choice. Additionally, considering additional studies that focus more on trainees, especially across a more diverse geographical location to evaluate if state mandated coverages impact job decisions and satisfaction.

Conclusions

In this survey of female physicians and medical students, our findings highlight comprehensive fertility benefit design as a meaningful workplace factor during physician reproductive years. Comprehensive fertility coverage has implications not only for physician satisfaction, but also for job recruitment, retention, and equity. Understanding how fertility coverage intersects with career decision-making may help inform institutional and policy-level discussions regarding reproductive health benefits within the medical workforce.

Abbreviations

ART: Assisted Reproductive Technology

OC oocyte cryopreservation

Declarations

Human ethics approval and consent to participate:

The Washington University in St. Louis Human Research Protection Office approved this study (Institutional Review Board approved study number 202309150). This office promotes and enforces compliance with core international ethical standards, including the World Medical Association's Declaration of Helsinki alongside the Belmont Report. All participants completed informed consent prior to participation.

Consent for publication

Not applicable

Fundings

This study did not receive funding.

Author Contribution

ANR: investigation, writing- original draftMS: investigation, writing- original draftRP: methodology, formal analysis, investigation, writing- review & editingAV: conceptualization, methodology, formal analysis, investigation, writing-review & editing, supervision, project administration

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Not applicable

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request

Competing interests

The authors declare that they have no competing interests.

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Figures

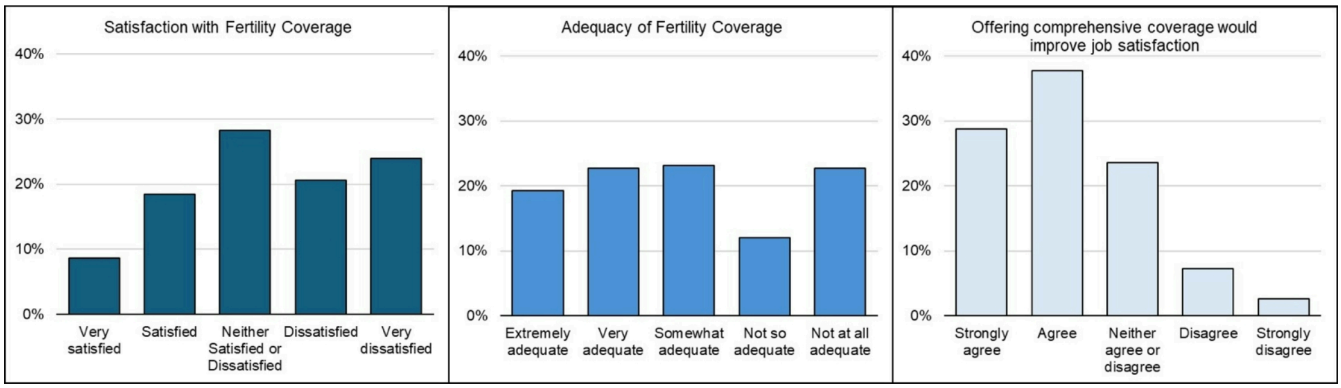


Figure 1

Respondents' satisfaction with fertility coverage, perceived adequacy of fertility coverage, and reported association between comprehensive fertility coverage and improved job satisfaction

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- FinalJobSatisfactionFertilityCovera.pdf