# Factors Influencing Residency Program Selection by Medical Students Pursuing Obstetrics and Gynecology

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## ABSTRACT

**Background** Little is known about the factors that influence medical student selection of obstetrics and gynecology (ob-gyn) residency programs.

**Objective** We assessed the factors influencing residency program selection by fourth-year medical students pursuing ob-gyn training.

**Methods** A voluntary, anonymous, 19-question survey of residency selection factors was distributed to all fourth-year medical students interviewing at 1 of 5 academic ob-gyn departments for a residency position during the 2013–2014 interview season. Participants were surveyed about the relative importance (not important, somewhat important, important) of various residency selection factors, including operative experience, exposure to subspecialties, curricular experience, access to fellowships, and administrative aspects of residency, including adherence to duty hour restrictions.

**Results** Of 322 potential respondents, 262 (81%) completed the survey. Surgical training and training in laparoscopic surgery were deemed "important" by nearly all respondents (98%, 258 of 262, and 97%, 253 of 262, respectively). Factors that were considered "not important" by a significant group of respondents included maternity/paternity leave policies (22%, 58 of 259); opportunity for international rotations/electives (20%, 51 of 259); exposure to quality and safety initiatives (13%, 34 of 259); and training in abortion (13%, 34 of 262).

**Conclusions** Fourth-year medical students identified surgical training as the most important factor in selecting an ob-gyn residency, a finding that is particularly relevant as decreasing and changing surgical volumes affect residency training in this specialty.

## Introduction

The National Resident Matching Program (NRMP) performs an annual survey of applicants to assess their motivations in selecting residency programs.[1,2] This survey provides information on national trends and includes questions relevant across specialties. The survey publishes findings for applicants to obstetrics and gynecology (ob-gyn) residency programs, but it does not include unique, specialty-specific questions. Geographic location has been the most important factor for applicants across specialties in NRMP surveys over the last several years.[1,2] As geographic location is not a factor that programs can modify to improve recruitment, we sought to identify other factors applicants may find important in residency program selection.

There have been many changes in ob-gyn, including the incorporation of robotic training, decreased open surgical training, and increased nonsurgical treatment options for conditions previously treated surgically.[3] There has also been a significant change in the demographics of ob-gyn. In 2013, female physicians made up 32.6% of the active physician workforce, 51.8% of practicing ob-gyn physicians, and 86% of residents in the specialty.[4] Given these changes, we believe it would be helpful for ob-gyn program directors to understand the factors currently deemed most, and least, important to fourth-year medical students selecting residency training programs. We report the results of a focused survey of applicants to ob-gyn programs, inquiring about the importance of factors that may impact residency selection.

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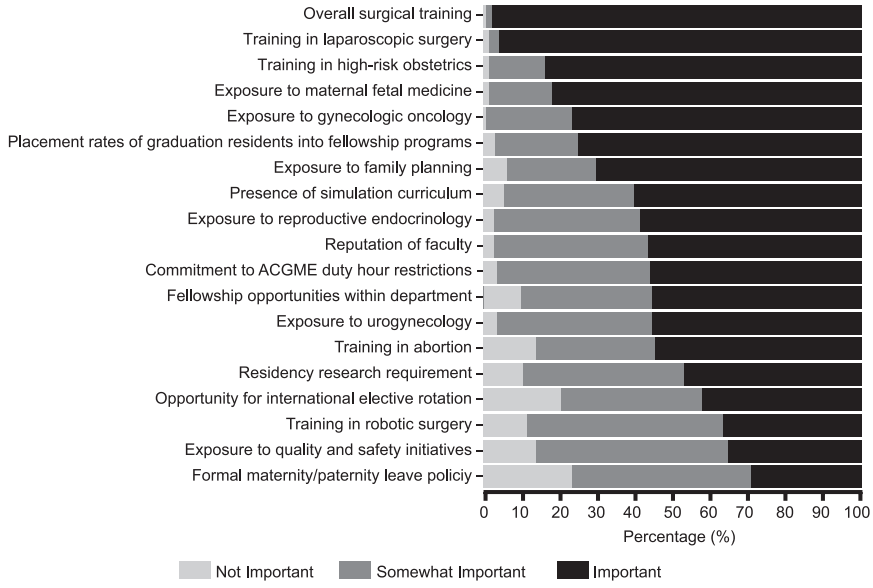
## Methods

A voluntary and anonymous survey was distributed to all fourth-year medical students interviewing at the University of Colorado (Colorado), the University of Washington, Seattle (UW), the University of California, San Francisco (UCSF), Loyola University Chicago (Loyola), and Texas A&M University (Texas A&M) for an ob-gyn residency position during the 2013–2014 interview season. The institutions were selected to represent




**FIGURE**

Importance of Selection Factors in Obstetrics and Gynecology Residency Selection

Note: Percentage of students indicating that 19 survey questions regarding factors involved in obstetrics and gynecology residency selection were "not important," "somewhat important," or "important."

programs providing residency training in a range of geographic locations and offering different residency sizes and fellowship training opportunities (TABLE).

The survey assessed factors that may influence applicants' selection of an ob-gyn residency program, asking respondents to rate 19 selection factors as "important," "somewhat important," or "not important" (FIGURE). The survey was designed by 2 of the authors (with the consensus of the other authors), and was administered during the 2012–2013 interview season to applicants at Colorado and Texas A&M to determine feasibility. The questions were based on the annual NRMP survey,[1,2] published applicant surveys,[5,6] and training/exposure to ob-gyn procedures and subspecialties. No changes were made to the survey instrument following the pilot administration. The survey was distributed in an anonymous, voluntary paper form by the residency coordinator on the day of the interview, or as an anonymous electronic survey using Catalyst software (Advanced Micro Devices Inc, Sunnyvale, CA) following the interview (UW only). Applicants were instructed to respond only once to the survey if they interviewed at more than 1 of the programs in the study.

The percentages of participants indicating each response on the 3-level Likert-type scale are reported for each of 19 selection factors.

The study was reviewed and considered exempt by the Institutional Review Boards at each participating institution.

## Results

A total of 418 applicants interviewed at the 5 residency programs. After cross-matching responses and interview lists between sites, there were 262 responses from 322 unique potential respondents (262 of 322, 81%; TABLE), as 70 interviewed at 2 programs and 13 interviewed at 3 programs. Seven respondents had some level of item nonresponse, such that the denominator for each item may vary.

Overall, surgical training and training in laparoscopic surgery were deemed "important" by nearly all respondents (98% [258 of 262] and 97% [253 of 262], respectively; FIGURE). This was followed (with decreasing frequency) by high-risk obstetrics training (84%, 221 of 262); maternal-fetal medicine exposure (82%, 215 of 261); gynecological oncology exposure (77%, 201 of 261); fellowship placement rates (75%, 197 of 261); family planning exposure (71%, 185 of 261); simulation curriculum (61%, 157 of 259); reproductive endocrinology exposure (59%, 154 of 260); faculty reputation (57%, 147 of 258); duty hours compliance (57%, 147 of 259); fellowship opportunities (56%, 147 of 261); urogynecology exposure (56%, 147 of 262); abortion training (55%, 145 of 262); resident research (47%, 123 of 259); international health rotations/electives (43%, 111 of 259); robotic surgery training (37%, 98 of 262); quality and safety initiatives (36%, 93 of 259); and maternity/paternity leave policies (30%, 77 of 259).

**TABLE**
Institution Characteristics and Survey Response Rate

| Institution | Resident Positions, Year | International Elective | Fellowships Offered | Applicants Interviewed | Survey Respondents |
|---|---|---|---|---|---|
| University of Colorado | 9 | Yes | MFM, REI, GYN ONC, FP | 122 | 82 |
| University of California, San Francisco | 9 | Yes | MFM, REI, GYN ONC, FP, ID, Women's Health | 80 | 50 |
| University of Washington, Seattle | 7 | Yes | MFM, GYN ONC, FP | 83 | 49 |
| Loyola University Chicago | 4 | No | FPMRS | 93 | 63 |
| Texas A&M University | 4 | No | FPMRS | 40 | 18 |
| Total applicants = 418; total respondents = 262 | | | | | |

Abbreviations: MFM, maternal-fetal medicine; REI, reproductive endocrinology and infertility; GYN ONC, gynecologic oncology; FP, family planning; ID, reproductive infectious disease; FPMRS, female pelvic medicine and reconstructive surgery.

Factors indicated by the largest percentage of respondents as "not important" included maternity/paternity leave policies (22%, 58 of 259); opportunity for international rotation/elective (20%, 51 of 259); exposure to quality and safety initiatives (13%, 34 of 259); and training in abortion (13%, 34 of 262).

## Discussion

We found surgical training, both overall and laparoscopically, to be the most "important" factors for fourth-year medical students in selecting an ob-gyn residency program in the 2013–2014 cohort, followed by training in high-risk obstetrics and exposure to maternal-fetal medicine. These factors represent critical aspects of the ob-gyn residency curriculum, and are the training priorities of many residency programs.

Fellowship opportunities within the department were noted as "important" by 56% of respondents in our study, and international rotations/electives were deemed "important" by 43% of respondents. This is similar to 2015 NRMP survey results, which showed that 60% and 35% of US medical school seniors pursuing ob-gyn training cited fellowship preparation and opportunity for international training as important, respectively.[2]

While training in abortion was "important" to 55%, it was "not important" to 13% of the respondents in our study. This may be due to the varied geographic distribution, training sites with religious affiliations, and family planning training/fellowships at participating sites.

As more women enter the field of ob-gyn,[4] we were surprised to find that a formal maternity/paternity leave policy was not highly important to applicants, and was rated as "not important" by 22%. This is somewhat congruent with the data from the 2015 NRMP survey, in which 23% of US seniors applying to ob-gyn programs indicated vacation/sick/parental leave was important.[2] Previous studies in emergency medicine,[7] pediatrics,[8] and general surgery[9,10] reported heterogeneity and lack of awareness of parental leave policies across specialties, but did not evaluate how these policies contributed to program selection.

Researchers have attempted to assess the relative weight of "lifestyle" factors for medical students in selecting a residency program. Ishida et al[6] reported that clinical experience was more important than lifestyle factors in selecting a general surgery residency in the United States and Japan. Parker et al[11] found that surgical case volume was similarly identified as an important factor in influencing general surgery applicants. Our report adds to insight into the factors that motivate medical students as they select residency training programs in surgically oriented specialties.

This study is limited by the geographic distribution and the urban and academic nature of participating programs, which reduce the generalizability of results. In addition, while the survey is based on previous NRMP surveys,[1,2] the added specialty-specific questions do not have established validity evidence, and respondents may not have interpreted the questions as intended. The lack of demographic information on respondents limited our ability to determine whether the importance of parental leave policy differed by sex or if international elective rotation differed by race/ethnicity or country of origin. We examined the data in aggregate instead of by institution, and cannot infer differences in importance of subspecialty exposure or abortion training by site. Finally, given the many factors that can contribute to residency selection, a single instrument is unlikely to capture all influences.

Our findings indicate that overall surgical training and laparoscopic surgical training are highly prioritized by medical students seeking training in ob-gyn. These priorities are in line with the Accreditation Council for

Graduate Medical Education's emphasis on minimum case log numbers for ob-gyn, but unfortunately conflict with the gradual decline in overall surgical volumes and the decrease in vaginal/abdominal cases.[3] Residency program directors may use these findings in resident recruitment, curriculum development, and realistic career counseling. Further work in this area could be conducted at institutions with greater program diversity to better represent the host of factors that influence applicant selection decisions. National organizations in ob-gyn also may consider qualitative approaches (such as focus groups) to better understand how the priorities of medical students may affect the future workforce in the specialty.

## Conclusion

Medical students interviewing for ob-gyn residency prioritized surgical training as most "important" in selecting a residency program, followed by exposure to high-risk obstetrics training, maternal-fetal medicine, gynecologic oncology exposure, and fellowship placement rates. In contrast, vacation/sick/parental leave was felt to be "not important" by a sizable group of applicants.

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