GYNECOLOGY

Abortion training in US obstetrics and gynecology residency programs

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BACKGROUND: Nearly 15 years ago, 51% of US obstetrics and gynecology residency training program directors reported that abortion training was routine, 39% reported training was optional, and 10% did not have training. The status of abortion training now is unknown.

OBJECTIVE: We sought to determine the current status of abortion training in obstetrics and gynecology residency programs.

STUDY DESIGN: Through surveying program directors of US obstetrics and gynecology residency training programs, we conducted a cross-sectional study on the availability and characteristics of abortion training. Training was defined as routine if included in residents' schedules with individuals permitted to opt out, optional as not in the residents' schedules but available for individuals to arrange, and not available. Findings were compared between types of programs using bivariate analyses.

RESULTS: In all, 190 residency program directors (79%) responded. A total of 64% reported routine training with dedicated time, 31% optional, and 5% not available. Routine, scheduled training was correlated with higher median numbers of uterine evacuation procedures. While the majority believed their graduates to be competent in first-trimester aspiration (71%), medication abortion (66%), and induction termination (67%), only 22% thought graduates were competent in dilation and evacuation. Abortion procedures varied by clinical indication, with some programs limiting cases to pregnancy complication, fetal anomaly, or demise.

CONCLUSION: Abortion training in obstetrics and gynecology residency training programs has increased since 2004, yet many programs graduate residents without sufficient training to provide abortions for any indication, as well as dilation and evacuation. Professional training standards and support for family planning training have coincided with improved training, but there are still barriers to understand and overcome.

Key words: gynecology/education, induced abortion, resident education, therapeutic abortion

Introduction

Abortion remains one of the most common reproductive health experiences and surgical procedures of women in the United States,[1] making uterine evacuation—regardless of the indication—a critical skill all obstetrician-gynecologists must be trained to perform. Routine training in abortion has been a core educational requirement of the Accreditation Council for Graduate Medical Education (ACGME) for obstetrics and gynecology (ob-gyn) residency programs since Jan. 1, 1996,[2] with additional family planning requirements over the years expanding to now explicitly include routine training in abortions for any indication, the management of uterine evacuation complications, and all methods of contraception.[3] The ACGME states that training in induced abortion must be integrated into the ob-gyn residency curriculum as an opt-out experience. Individual residents can opt out of portions of the training, but this training cannot be an elective, opt-out experience. If a program does not have scheduled training in induced abortions they would be considered out of compliance, even though they allow residents to include all uterine evacuation procedures in their case numbers.[3] A recent American Congress of Obstetricians and Gynecologists (ACOG) committee opinion reaffirmed the importance of this training requirement and encouraged expansion of training to family physician and advanced practice clinician training programs.[4]

Prior to the implementation of training requirements, the proportion of programs reporting routine training had fallen from 23% in 1985[5] to 12% in 1992.[6] Several publications on the effect of this lack of training on the availability of providers,[7,8] as well as advocacy efforts from Medical Students for Choice,[9] were effective in creating change. Additionally, in 1999, soon after the ACGME policy, the Kenneth J. Ryan Residency Training Program in Abortion and Family Planning was launched. The Ryan Program provides support for residency programs to initiate or expand dedicated family planning training.

After the ACGME policy change and the launching of the Ryan Program, the number of programs reporting routine training rose to 31% in 1998[10] and then 51% in 2004.[11] In the 2004 survey, an additional 39% of directors reported availability of unscheduled, optional training that residents can seek outside of their regular duties, and 10% reported no training options. To gain understanding of resident training 10 years later, we conducted a cross-sectional study of ob-gyn residency program directors to assess current abortion training and the proportion of programs in compliance with the ACGME policy.

Materials and Methods

We identified ob-gyn residency programs through the Fellowship and Residency Electronic Interactive Database (FREIDA) Online, the American Medical Association database of all graduate medical education programs accredited

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AJOG at a Glance

Why was this study conducted?

To describe abortion training in US obstetrics and gynecology residency training programs in 2014. This was last surveyed in 2004, when 51% of program directors reported abortion training to be routine, 39% elective, and 10% not available.

Key findings

In all, 64% of programs provide routine training with dedicated time, 31% have optional abortion training, and 5% do not make abortion training available. Routine training was correlated with higher numbers of uterine evacuation procedures.

What does this add to what is known?

This study provides the current status of abortion training in the United States.

by the ACGME, for which a login was required.[12] We then contacted all 242 residency program directors (the number of programs as of 2013) via listed email addresses within FREIDA Online with an invitation to participate in an online survey. A prenotification letter, an invitation letter, and up to 3 email reminders were sent from February 2014 through April 2014. In October 2014, a paper survey with self-addressed envelopes and a $25 gift card were sent to the remaining nonrespondents to the addresses listed in FREIDA Online. Data were deidentified once it was noted that the director responded. The University of California, San Francisco, institutional review board considered the study exempt because there was minimal risk to participants.

Surveys consisted of 74 multiple-choice, open-ended, and quantitative questions including many asked in prior surveys.[11] We collected data about the training programs including location, size, program type, and affiliation with the Ryan Program. We asked directors to describe the availability and details of training in abortion, meant to be interpreted as induced abortion, consistent with ACGME requirements. We asked directors to categorize the abortion training as routine, optional, and not available in 1 question consistent with previous studies:[5,6,10,11] routine—automatically included in a resident's schedule, with an opt-out provision; optional—training that is not part of the rotation schedule but residents can choose to opt in, either at the teaching hospital or through a relationship with a freestanding clinic; and none—where abortion training is not available in any way as part of the residency program's curriculum. We separately asked if there was dedicated time for training, either as a distinct rotation or integrated into another rotation and then combined this with the categorization question to label the training as routine, optional, or not available. We did this as a quality-control measure to ensure that routine training included only programs with scheduled training.

Training details included structure and expectations, abortion techniques, average numbers done by residents and for which indications, the proportion of residents that participate, and location of clinical training sites. For second-trimester procedures, we also asked about the gestational age to which residents were trained, and the proportion of residents trained to competency at different gestational age ranges. To understand whether there were specific limitations on clinical indications, we separately asked about for which indications residents are trained in. We did not collect any information about the residency program director.

All statistical analyses were conducted with STATA/IC statistical software, Version 12.0 (StataCorp, College Station, TX) with a P value $\leq .05$ considered statistically significant. Frequencies were calculated for all variables, and bivariate analyses were performed for residency region, residency faith affiliation, all uterine evacuation methods, and residency review committee training requirements vs status of integrated abortion training.

Results

Program characteristics

In all, 190 (79%) residency program directors responded, with 83% submitting surveys online and 17% via paper. As reported in Table 1, of programs, 14% had a faith affiliation, and one third were affiliated with the Ryan Program at the time of the survey. Programs were fairly equally distributed in all regions of the United States. Nonrespondents were more likely to be in the Northeast (42% vs 30%) and the South (38% vs 30%), and less likely to be from the Midwest (17% vs 23%) and the West (2% vs 17%), ($P = .02$). In addition, while 35% of respondents were Ryan Programs, only 10% of nonrespondents were Ryan Programs ($P = .00$).

Using the program directors' initial categorizations of training, consistent with the language in previous surveys, 80% reported routine, 15% optional, and 5% no abortion training. Using the additional confirmatory question of scheduled time for abortion training to establish routine training, 64% (121) of programs had routine training with dedicated time, 31% (59) optional, and 5% (10) not available. Programs in the South were less likely to have routine training than programs in other regions ($P = .04$). The majority (90%) believed their training met the obgyn review committee abortion training requirement, some were unsure (5%), and of the 9 that reported that it did not, 7 had been cited by the review committee for inadequate training (6 with optional training and 1 with no training).

Training details

Nearly all program directors reported that residents have some training in uterine evacuation procedures, although the circumstances for the evacuation varied depending on the type of training, hospital policies, and types of clinical presentation: 99% in medication abortion, 93% in first-trimester aspiration abortion, 90% in dilation and evacuation (D&E), and 97% in induction termination (Table 2). Directors reported that residents do a median of 12 medication abortions by the

TABLE 1
US obstetrics and gynecology residency characteristics

Variable	Total, n = 190
Region	
Northeast[a]	57 (30%)
South[b]	57 (30%)
Midwest[c]	43 (23%)
West[d]	31 (17%)
Faith affiliation	26 (14%)
Ryan Program affiliation	65 (34%)
Abortion training type	
Routine, defined by dedicated time in schedule	121 (64%)
Optional, no dedicated time but residents can arrange training	59 (31%)
None	10 (5%)
Residents	22 (20)

Values are n (%) or mean (median).

[a] Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, Pennsylvania; [b] Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, District of Columbia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, Texas; [c] Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; [d] Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, Washington.

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end of residency, 27 first-trimester aspirations, 4 D&Es, and 9 induction terminations. The proportion of directors that reported all graduating residents to be fully competent to provide each uterine evacuation technique independently were: 66% medication abortions; 71% first-trimester aspiration abortion; 22% D&Es to 17 weeks', 6 days' gestational duration (directors were asked to choose from a list of gestational durations); and 67% induction terminations. Routine status varied by geographic region, with those in the West more likely and those in the South less likely to have routine training.

Directors at programs with routine training were more likely to report resident competence in first-trimester aspiration abortion and second-trimester D&E, with higher numbers reported for each than by directors at programs with optional training. We also found differences in the indications for uterine evacuation procedures by training status. Programs with optional or no training were more likely to report that the types of evacuation procedures were done only for pregnancy complications and pregnancy loss ($P < .01$) or only in cases of pregnancy loss ($P \leq .01$) than programs with routine training. For example, 40% of medication abortions at programs with no training were done only in settings of pregnancy loss, indicating that their residents' experience is likely primarily for medical management of early pregnancy loss rather than termination of pregnancy for other indications.

Overall, directors reported that a median of 75% of residents fully participated in the abortion training, 10% partially participated, and 3.5% opted out of abortion training. Full participation ranged from 0-100%. Participation varied by type of training as well: programs with routine training reported a median of 79% of fully participating residents, while those with optional training reported 45% ($P < .01$).

In general, directors reported that 82% of residents rank the family planning rotation higher than other outpatient gynecology rotations. In 63% of all programs, abortion training is routinely discussed during the interview process for residency application, and 50% reported that the departments' ability to offer training in abortion makes the program more desirable to applicants.

Comment

We found that integrated abortion training has increased since the previous survey in 2004, with a solid majority of programs offering routine training included in residents' schedules. Additionally, optional training has decreased, as has the number of programs offering no training. In contrast to previous surveys we applied a requirement for dedicated time in the schedule, either as a distinct rotation or integrated into another rotation, to be considered routine training. While this possibly underestimates the change from 2004 through 2014, it gives us a more accurate estimate of routine training prevalence, which can be used to guide training efforts and future research.

A number of factors may be responsible for these significant changes in resident education: implementation of ACGME requirements for routine abortion training, outreach and support for launching formal family planning rotations through the Kenneth J. Ryan Residency Training Program in Abortion and Family Planning, increased[13] faculty expertise in abortion and contraception through these increased training opportunities as well as the Fellowship in Family Planning,[10] and a heightened awareness among a new generation of residents about their role in providing safe access to abortion from exposure to groups such as Medical Students For Choice during medical school.[9] Further, professional organizations such as ACOG recognize family planning as an important aspect of medical care and include it in core clinical training content.[4] Interestingly, we found no difference in training by institutional religious affiliation, which conflicts with some studies of faith-based training.[14] This may indicate programs' efforts to establish relationships with secular hospitals or clinics to meet the ACGME requirement,[15,16] and is an area warranting future research.

While almost all programs surveyed report some training in alignment with

TABLE 2
US obstetrics and gynecology residency program characteristics, by status of integrated abortion training

Variables	Total, n = 190	Routine, n = 121	Optional, n = 59	None, n = 10	*P* value
US region of residency program					
Northeast[a]	57 (30)	40 (33)	16 (28)	1 (10)	.26
South[b]	57 (30)	29 (24)	23 (40)	5 (50)	.04
Midwest[c]	44 (23)	26 (22)	15 (26)	2 (20)	.80
West[d]	31 (16)	25 (21)	4 (7)	2 (20)	.06
Faith affiliation of residency program					
Nonreligious, vs religiously affiliated programs	161 (86)	106 (90)	47 (81)	8 (80)	.30
Uterine evacuation procedures Medication abortion					
Residents receive some training	188 (99)	120 (99)	58 (98)	10 (100)	.82
For all indications	122 (64)	101 (83)	20 (34)	1 (10)	.00
Only for pregnancy complications or pregnancy loss	48 (25)	14 (12)	29 (49)	5 (50)	.00
Only for pregnancy loss	18 (9)	5 (4.1)	9 (15)	4 (40)	.00
No. done, mean (median)	20 (13.5)	21.3 (15)	16.7 (10)	24.4 (15)	.36
Proportion of directors who report all residents are competent at graduation	120 (66)	78 (67)	34 (60)	8 (80)	.38
First-trimester aspiration abortion					
Residents receive some training	177 (93)	114 (94)	53 (90)	10 (100)	.37
For all indications	118 (62)	98 (81)	20 (34)	0 (0)	.00
Only for pregnancy complications or pregnancy loss	40 (21)	11 (9.1)	23 (39)	6 (60)	.00
Only for pregnancy loss	19 (10)	5 (4.1)	10 (17)	4 (40)	.00
No. done, mean (median)	29.2 (35)	41.3 (30)	22.0 (20)	28.9 (35)	.00
Proportion of directors who report all residents are competent at graduation	124 (71)	78 (70)	38 (73)	8 (80)	.74
Second-trimester dilation and evacuation					
Residents receive some training	171 (90)	115 (95)	47 (80)	9 (90)	.01
For all indications	95 (50)	83 (69)	12 (20.3)	0 (0)	.00
Only for pregnancy complications or fetal demise	63 (33)	29 (24)	29 (49)	5 (50)	.00
Only for fetal demise	13 (7)	3 (2.5)	6 (10)	4 (40)	.00
No. done, mean (median)	11.2 (5)	13.9 (10)	5.6 (4)	5.3 (2)	.00
Proportion of directors who report all residents are competent at graduation:					
To 17 6/7 wk	36 (22)	24 (22)	11 (23)	1 (11)	.71
To 19 6/7 wk	9 (6)	9 (8.4)	0 (0)	0 (0)	.86
To 21 6/7 wk	1 (1)	1 (0.9)	0 (0)	0 (0)	.78
Second-trimester induction termination					
Residents receive some training	185 (97)	118 (98)	57 (97)	10 (100)	.81
For all indications	61 (32)	56 (46)	5 (8.5)	0 (0)	.00
Only for pregnancy complications or fetal demise	104 (55)	53 (44)	45 (76)	6 (60)	.00
Only for fetal demise	20 (11)	9 (7.4)	7 (12)	4 (40)	.01

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TABLE 2
US obstetrics and gynecology residency program characteristics, by status of integrated abortion training *(continued)*

Variables	Total, n = 190	Routine, n = 121	Optional, n = 59	None, n = 10	*P* value
No. done, mean (median)	16.2 (10)	18.3 (10)	11.8 (10)	12.6 (10)	.05
Proportion of directors who report all residents are competent at graduation	110 (67)	70 (65)	31 (65)	9 (90)	.27
Obstetrics and gynecology review committee training requirements					
Report that they meet review committee requirement for abortion training	158 (90)	113 (97)	41 (84)	4 (40)	.00
Had been cited by review committee for not meeting requirement	7 (4)	0 (0)	6 (10)	1 (10)	.02

Values are n (%) unless otherwise specified.

[a] Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, Pennsylvania; [b] Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, District of Columbia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, Texas; [c] Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; [d] Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, Washington.

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ACGME requirements, it is still optional in many programs. In accordance with our findings that routine status correlated with estimates of procedures done for uterine aspiration and D&E, other studies have also demonstrated that routine integration of family planning training is correlated with more skills in contraception and pregnancy options counseling, ultrasound, intrauterine device and implant placement, and uterine evacuation procedures, and higher self-assessed competence in these skills.[13,17,18] Routine training also increases the odds that graduates will provide comprehensive care of women's reproductive health needs, including outpatient and medical management of early pregnancy loss and integration of abortion care in practice.[17,19]

While program directors report the majority of residents to be fully competent in some uterine evacuation techniques, our findings indicate that circumstances under which the residents acquired or will be capable to practice these skills may be limited. For example, some programs report that techniques are only taught in limited settings: 10% of programs teach medication abortion only in setting of early pregnancy loss, suggesting that residents in these programs do not learn to do options counseling for an unintended pregnancy or to administer and manage protocols of mifepristone and misoprostol. Uterine evacuation by D&E is apparently not as commonly taught as induction, and if so, only to the 17th week of gestation. Perhaps there is still a shortage of gynecologists who are competent in D&E or the hospital limits the circumstances under which second-trimester terminations are offered. Since D&E is a complex procedure requiring a significant volume of cases, many programs fall short of training their residents to competence. Guidelines by domestic and international ob-gyn organizations (International Federation of Gynecology and Obstetrics, ACOG, Royal College of Obstetricians and Gynecologists, Society of Obstetricians and Gynecologists of Canada) state that while individual residents can opt out of doing abortions in elective circumstances they must be able to safely evacuate a uterus in the setting of emergency, and be able to manage the complications associated with uterine evacuation techniques. Thus, every resident, even if s/he does not want to do abortions outside of cases of demise, must be trained in the skills. Qualitative research of New York–based physicians identified further barriers to inclusion of abortion training including challenges associated with ob-gyn program leadership conflicts, a lack of second-trimester abortion services, the difficulties of having to coordinate your own training in programs with opt-in training, and the antiabortion values of hospital personnel.[20]

Our response rate of 79% is the highest of program director surveys thus far with response rates of 69% in 1998[10] and 73% in 2004.[11] Our findings might overestimate training prevalence based on the differences in response rate by region and Ryan affiliation. If we were to assume that the 21% of programs that did not respond to our survey did not have routine training, the current proportions with routine training would be 50-63%, depending on definition of routine (50% if using the more rigorous definition as we did in this analysis, or 63% if simply using the program director category). Still, program directors may have been less or more likely to respond based on their personal beliefs or training specifics in their programs. To compare our data with the prior studies' data we could have emphasized the higher proportion of 80%, but we chose to apply a more conservative dedication—having the training scheduled either in a dedicated rotation or integrated into another. However, it is likely that prior studies' estimates of prevalence overestimated the proportion with routine training, still suggesting that training has increased.

Training in uterine evacuation methods continues to increase in ob-gyn residency, and a majority of programs offer routine, regularly scheduled abortion training.

However, this still leaves a substantial number of residency graduates without sufficient competency to safely perform uterine evacuation. Clearer training standards by professional organizations and greater national support for family planning training have likely contributed to improved access to training, despite a backdrop of policies and laws restricting access to care. Future research in barriers to abortion training could include a qualitative understanding of ob-gyn department chair values and their effects on the ability of Program Directors to incorporate mandated training for residents, characterizing the beliefs that nonphysician ob-gyn staff have surrounding abortion provision, and enhancing the minimum numbers of various procedures within ACGME requirements. Overcoming these barriers can help to ensure that all obstetrician-gynecologists are prepared to provide full-scope, high-quality care for all women. ■

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