

## Innovations in Family Medicine Education

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*Editor's Note:* Send submissions to [jfreeman3@kumc.edu](mailto:jfreeman3@kumc.edu). Articles should be between 500–1,000 words and clearly and concisely present the goal of the program, the design of the intervention and evaluation plan, the description of the program as implemented, results of evaluation, and conclusion. Each submission should be accompanied by a 100-word abstract. Please limit tables or figures to one each. You can also contact me at Department of Family Medicine, KUMC, Room 1130A Delp, Mail Code 4010, 3901 Rainbow Boulevard, Kansas City, KS 66160. 913-588-1944. Fax: 913-588-2496.

### A Family Medicine Training Collaborative in Early Abortion

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**Objectives:** *This study's objective was to assess participation and perceived benefits of abortion training among residents at programs with integrated early abortion care.* **Intervention:** *We developed a collaborative early abortion training network.* **Results:** *Residents at training sites had high participation (71%) and were more likely to report familiarity and comfort with providing early abortion care than comparison sites. Residents reported benefits to overall training (78%), satisfaction (55%), and plans to provide abortion care (40%).* **Conclusions:** *This collaborative abortion training program was valued by residents and was associated with greater self-assessed skills and positive attitudes toward providing early abortion care than at comparison sites.*

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Early abortion is a common outpatient procedure in the United States; approximately 25% of all pregnancies end in termination, and nearly 90% occur in the first trimester.<sup>1</sup> Innovative medication and aspiration abortion (ASP) techniques facilitate

the delivery of early abortion care by primary care physicians, yet only a minority of residency programs offer abortion training.<sup>2-5</sup> An even smaller number incorporate this training into routine primary care delivery.<sup>6,7</sup> We developed a multi-institutional early abortion training collaborative located in family medicine residencies. To evaluate the effects of this program, we carried out an assessment of resident-reported participation, familiarity and comfort with abortion care, perceived benefits and satisfaction with training, and plans to provide abortion care after residency.

#### **Intervention**

##### *Setting and Subjects*

Seven residency training programs were part of a grant-funded collaborative (Early Options Network) to initiate family medicine residency training in early abortion.<sup>8</sup> The network operated for 4 years (2001–2004) and provided faculty training, administrative support, and equipment to the seven residencies. Four sites (three in New York City and one in Philadelphia) that had provided resident abortion training for at least 24 months at the time of this study were included. A comparison group of residency

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programs that were not in the Early Options network (no on-site abortion care/training) was comprised of nine New Jersey family medicine residencies (all but one in the state). These sites were selected because of comparable resident demographics and regional proximity.

### *Training Program*

Faculty members (two per residency) first completed an abortion-trainer curriculum and then implemented a standardized curriculum in their own residencies. The process of establishing this resident training, including faculty training and administrative tasks, has been described previously.<sup>8</sup> Resident training involved group lectures, self study, and individual clinical supervision required of all trainees (opportunity to “opt out” of direct abortion care only). A common resident curriculum was created for this project, using previously developed materials when available, with modules covering patient counseling, trans-vaginal ultrasonography, medical abortion (MED), manual vacuum aspiration (MVA), ASP, and complication management.<sup>9,10</sup> At least two 1-hour lectures using common case-based slide sets were provided annually at each residency covering early abortion. Abortion care and training were provided during office hours or in dedicated procedure clinic sessions within resident-faculty practices at all sites. In addition to general outpatient care, all residents participated in weekly procedure sessions for a month in the second or third year of training. The MED protocol used mifepristone with misoprostol up to 63 days gestational age.<sup>11</sup> ASP was provided using MVA up to 84 days gestation.<sup>12</sup> Gestational age was determined by the faculty-resident providers using trans-vaginal ultrasound.

### *Evaluation*

A previously described survey was used to measure self-assessed

knowledge, attitudes, and skills related to early abortion.<sup>13</sup> Participants responded to a global assessment of current knowledge of abortion as well as specific knowledge and attitude items. The survey was distributed to all residents (n=84) at the four training sites during required residency meetings (\$10 completion incentive). The response rate for this group was 92% (n=77). In each of the comparison sites, surveys were distributed to all attendees at a single required resident conference. The response rate for this group was 99% (n=89). To facilitate analyses, the response items were dichotomized into high knowledge scores (excellent or good) and lower knowledge (fair or poor) or high agreement (strongly agree and agree) and lower agreement (neutral, disagree, strongly disagree). The  $\chi^2$  statistic was used to assess difference in responses from the training versus comparison sites using SPSS version 12 software (SPSS Inc, Chicago). Institutional Review Board approval was granted from all participating institutions.

### **Results**

Of the 77 residents in sites with abortion training, 55 (71%) participated in abortion training: 14 (18%) only attended lectures; 41 (54%) also participated in direct patient care. As expected, participation rates increased ( $P<.05$ ) over the course of residency from 54% for PGY-1, to 60% for PGY-2, and 89% for PGY-3. Residents at training sites reported gaining relevant clinical skills as a result of this training, including pregnancy options counseling (55%), ultrasonography (34%), MED and ASP procedures (44%), contraception (56%), and post-abortion care (45%). The majority of residents were “satisfied” or “highly satisfied” with their training (55%), and 60 (78%) indicated that the training had been beneficial to their overall residency experience. Forty percent

of residents at training sites indicated that they envision themselves providing early abortion services after residency.

### *Training Sites Versus Comparison Group*

There was no significant difference in respondents between training and comparison sites in gender, year of residency training, or prior training experience in abortion (not shown;  $P>.05$ ). As shown in Table 1, residents from abortion training sites were more likely to indicate good or excellent overall knowledge of induced abortion procedures than the comparison group ( $P<.001$ ). Residents from training sites also reported greater knowledge of the specific abortion procedures included in this training initiative (MED and MVA ASP,  $P<.001$ ) but not other comparable ASP techniques ( $P=.250$ ). Although a majority of residents from both the collaborative and comparison groups felt that early MED and ASP procedures are safe, a greater proportion from the training group held that view for MED ( $P=.007$ ). Residents from the sites with training were also more likely to state that early abortion care is within the scope of family medicine ( $P<.001$ ) and that training in early abortion should be part of family medicine curricula ( $P=.017$ ).

### **Conclusions**

We found that a multi-institutional early abortion program that integrated training within routine outpatient care was associated with more positive attitudes toward abortion training among residents than at sites without training. Most residents in training programs valued it as part of the general curriculum. These residents were more likely to report clinical skills in abortion care as compared with residents from comparison sites without abortion training. A sizable proportion also indicated plans to offer these services after residency.

Table 1  
Resident Knowledge of and Attitudes toward Early Abortion\*

	Training Sites n=77 Number (%)	Comparison Sites n=87 Number (%)	$\chi^2$ (DF)	P Value
<b>A. Overall knowledge of elective abortion care</b>				
Excellent or good	36 (47)	14 (16)	15.5 (1)	<.001
<b>B. Knowledge items (agree or strongly agree)</b>				
Have adequate knowledge to discuss MED versus ASP	55 (71)	35 (40)	16.1 (1)	<.001
Familiar with MED protocol	47 (61)	17 (20)	30.0 (1)	<.001
Familiar with MVA, ASP protocol	39 (52)	16 (18)	20.3 (1)	<.001
Familiar with other ASP techniques	26 (34)	37 (43)	1.3 (1)	.250
<b>C. Attitude items (agree or strongly agree)</b>				
First-trimester MED is safe	74 (97)	75 (85)	7.2 (1)	.007
First-trimester ASP is safe	71 (92)	75 (86)	1.5 (1)	.202
MED is within scope of family medicine	70 (91)	53 (61)	20 (1)	<.001
ASP is within scope of family medicine	57 (74)	23 (26)	38.0 (1)	<.001
Abortion education should be part of family medicine curricula	67 (89)	65 (75)	5.7 (1)	.017

\* Representative survey items are provided here; the full survey included 38 items.

DF—degrees of freedom

MED—medication abortion

ASP—aspiration abortion

MVA—manual vacuum aspiration

Further work is needed to see if graduates follow through on these plans. This collaborative model should be considered by residencies contemplating the initiation of abortion training.

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