



Reproductive Health

“It Allows You to Challenge Your Beliefs”: Examining Medical Students’ Reactions to First Trimester Abortion


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A B S T R A C T

Background: Abortion is a common medical procedure, integral to women's health, and a core educational topic for medical students. Medical schools often rely on brief clinical exposure to abortion during the obstetrics and gynecology clerkship to provide this learning. Abortion is also a highly politicized and stigmatized procedure. Given this potential conflict, we examine medical student reactions to their observation of abortion care.

Study Design: Medical students in their second and third years at an academic medical center who observed in a first trimester abortion clinic completed open-ended, written questionnaires. Questionnaires explored student reactions to participating in the abortion clinic. We used applied thematic analysis to code and qualitatively analyze 78 questionnaires.

Results: We identified the following five themes: (1) students found participating in abortion care deeply worthwhile, (2) some were challenged by their reactions, particularly when reactions conflicted with prior beliefs, (3) some demonstrated empathy for the patient, but (4) some expressed judgment of both the patient and the abortion provider, and (5) students reported a desire for curricular change around abortion education, requesting more time for reflection, and some felt that their abortion observation might better prepare them to serve future patients.

Conclusions: Observing in an abortion clinic is a valued experience that allows students to challenge their existing beliefs and may build empathy. Educators should provide students with adequate time for preparation and reflection around this topic and address areas of misunderstanding that may perpetuate abortion stigma. These findings may inform medical student curriculum changes around abortion.

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Abortion is a common medical procedure in the United States (Jones & Jerman, 2017) and the provision of abortion care is an integral component of reproductive health care (American College of Obstetricians and Gynecologists, 2014, 2018). As future physicians, medical students are likely to interact with patients experiencing unwanted pregnancy during their careers. Abortion care education is therefore listed by the Association of Professors of Gynecology and Obstetrics as a core educational topic area for medical students (Association of Professors of Gynecology and Obstetrics, 2014). Medical schools commonly

teach abortion through brief clinical exposure (a day or less) during the obstetrics and gynecology (Ob-Gyn) clinical clerkship (Espey, Ogburn, Chavez, Qualls, & Leyba, 2005). Additionally, the Counsel of Residency Education for Obstetrics and Gynecology supports family planning education and abortion training for Ob-Gyn resident trainees (Counsel on Resident Education for Obstetrics and Gynecology, 2016).

Abortion is also highly politicized (Gallup Poll News Service, 2010; Public Religion Research Institute, 2011) and stigmatized (Harris, Debbink, Martin, & Hassinger, 2011; Kumar, Hessini, & Mitchell, 2009; Norris et al., 2011; O'Donnell, Weitz, & Freedman, 2011). Regardless of the Association of Professors of Gynecology and Obstetrics and the Counsel of Residency Education for Obstetrics and Gynecology's recommendations, medical students have diverse opinions about abortion (Bennett, McDonald, Finch, Rennie, & Morse, 2018; Shotorbani, Zimmerman, Bell, Ward, & Assefi, 2004) that could affect how

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they discuss abortion with patients. Women seeking an abortion prefer nonjudgmental, accurate information, and prompt referral (Kumar, Baraitser, Morton & Massil, 2004).

Although prior survey data indicate that medical students find exposure to abortion valuable (Espey, Ogburn, Leeman, Nguyen, & Gill, 2008), and clinical exposure may change student attitudes toward abortion (Espey, Ogburn, & Dorman, 2004), no study has asked students on the core Ob-Gyn clerkship to qualitatively reflect on participating in abortion care. We sought to explore student reactions to clinical abortion exposure.

Methods

The Vagelos College of Physicians and Surgeons (VP&S) is a 4-year medical school at Columbia University Irving Medical Center (CUIMC) in Upper Manhattan in New York City. During the last 6 months of the second year of medical school or the first 6 months of the third year, students at VP&S participate in the Ob-Gyn clerkship, which is a core component of VP&S's major clinical year (Columbia University VP&S, 2019). For most students, the Ob-Gyn clerkship rotation occurs at CUIMC's main hospital, although about one-quarter of VP&S students complete the clerkship at another clinical site. Students are randomly assigned to these sites by the clerkship coordinators. At the time of this study, students rotating at CUIMC could observe in a first trimester abortion clinic for one-half of a day during their Ob-Gyn clerkship. Although not required, approximately 85% of students rotating at CUIMC's main hospital chose to participate each year. In this clinic, patients with pregnancies up to 13 weeks gestation seeking surgical abortion care or miscarriage management underwent ultrasound evaluation, in-office abortion procedures, contraception counseling, and, in some cases, contraception initiation. Faculty members in the division of Family Planning at CUIMC, as well as Family Planning subspecialty fellows and Ob-Gyn residents, staffed the clinic. To observe in the clinic, students signed up with the Ob-Gyn clerkship coordinators. Decisions to participate did not affect student grades or academic standing. In addition to the clinic opportunity, during the Ob-Gyn clerkship students received a 1-hour lecture on abortion techniques that included training on the mechanics of a surgical abortion using a papaya as a uterine model (Steinauer, Preskill, & Robertson, 2007).

From October 2014 to September 2015, at the beginning of the Ob-Gyn clerkship rotation, a Family Planning subspecialty fellow who did not grade or assess students invited all students who observed in the abortion clinic to complete open-ended questionnaires about their experiences. The study was performed in conjunction with a separate randomized controlled trial assessing the effect of an educational intervention on Objective Structured Clinical Examination scores (Rivlin & Westhoff, 2019). Although the same students were recruited to participate in both studies, the studies were separate, with distinct measurements and outcomes. The study reported here was described to students as an investigation of their responses to viewing abortion. Students could decline participation in both studies without impacting their academic performance. Study participants provided demographic information about age, gender, and career plans. Students were excluded if they completed their Ob-Gyn rotation off site from CUIMC, declined to participate in the abortion clinic or study, or did not complete the questionnaire after clinic participation. This study was approved by the

Institutional Review Board at CUIMC (Reference number IRB-AAAN7420).

The study questionnaire was modified from an already existing questionnaire that all students participating in the clinical abortion experience were expected to complete. The original questionnaire, used as an ungraded teaching exercise, was designed to verify clinic participation and to assess student knowledge. It included questions about methods of first trimester abortion, anesthesia options, and the patient's gestational age of pregnancy. For the purposes of this study, the original questionnaire was modified to allow for an exploration of student reactions to viewing abortion. Questions were modified to be more open ended and to allow for student reflection. This study was exploratory, with the goal of better understanding student reactions and processing after witnessing abortion. We also hoped to give students an outlet for reflection after the experience. The questionnaire addressed student responses to the clinic, such as to the patient, the pregnancy, and the provider, and explored student reactions. Questions about the patient included, "What do you think this pregnancy meant to the patient?" Questions about the abortion provider included, "How did the patient respond to the provider?" Questions about the student's reactions included, "How did watching this procedure make you feel?" After initial development, the questionnaire was piloted with 13 medical students in a focus group and then modified based on feedback. Focus group feedback led to modifications to clarify the intent of questions and to improve readability. Based on an a priori decision, no pilot questionnaires were included in final analyses to improve consistency. The final questionnaire had eight questions (Appendix 1).

Students were scheduled to participate in the abortion clinic throughout their 6-week Ob-Gyn clerkship. After the experience, students hand-wrote their responses to the eight open-ended questions on paper. Students most commonly completed the questionnaire on their own time after the experience and submitted their responses to the clerkship team by hand, usually within 1 week. Students were not compensated for completing questionnaires, but questionnaire completion was considered an expectation of the clinical abortion experience, because completing the original questionnaire had already been standard practice. Students had the option to decline questionnaire analysis by not consenting to the study. Once submitted to the clerkship team, the questionnaires were then given to a study team member not involved in student evaluation who deidentified, transcribed, and imported those questionnaires of consenting students into NVivo version 10 (QSR International Pty Ltd) for coding management.

Themes were coded using applied thematic analysis, which identifies and describes implicit and explicit ideas found in the data to generate themes (Guest, MacQueen, & Namey, 2012). The first author read all transcripts and developed a preliminary codebook. A second researcher joined the team for data analysis to diversify experiences and to decrease bias. After multiple readings of the data and open discussions among the research team, a preliminary codebook evolved. Using an iterative approach, the researchers discussed emerging themes, developed a final codebook, and determined when theoretical saturation was reached (or when no new themes emerged).

Results

Of the 156 students in the major clinical year at VP&S during our study's duration, 114 completed their Ob-Gyn clerkship

onsite at CUIMC, 111 were recruited for the study, and 105 (95%) provided consent. Of students who consented to the study, 92 (87%) completed questionnaires. Students not completing questionnaires either ultimately did not participate at the abortion clinic or did not submit a questionnaire to the clerkship team after participation. Seventy-eight questionnaires (85%) completed were analyzed after 14 questionnaires (one Ob-Gyn rotation group) were misplaced before their reaching our study team (Figure 1). The mean age of students who consented to the study was 26 years (range, 21–38 years). Fifty-two percent identified as male, 49% as female, and none as other. Most students were undecided on career plans. Of the six students who declined consent, one-half were female and four were undecided on career plans. Demographic characteristics obtained of students participating in the study were similar to those of all VP&S students and all students enrolled in a US medical school during the 2014–2015 academic year (Columbia Vagelos College of Physicians and Surgeons VP&S, 2015; Association of American Medical Colleges, 2019) (Table 1).

Student written responses varied in length from one to two words to multiple paragraphs in answering each of the eight questions. Using applied thematic analysis, five central themes emerged: 1) Students found the experience worthwhile, 2) but were challenged and surprised by their responses. Students exhibited both 3) empathy for and 4) judgment of the patient undergoing an abortion. Some students 5) requested changes to the current abortion curriculum and felt that the experience would better prepare them to serve future patients.

Worthwhile Experience

Most students found their experience deeply worthwhile. They noted that the abortion clinic provided a clinical correlation

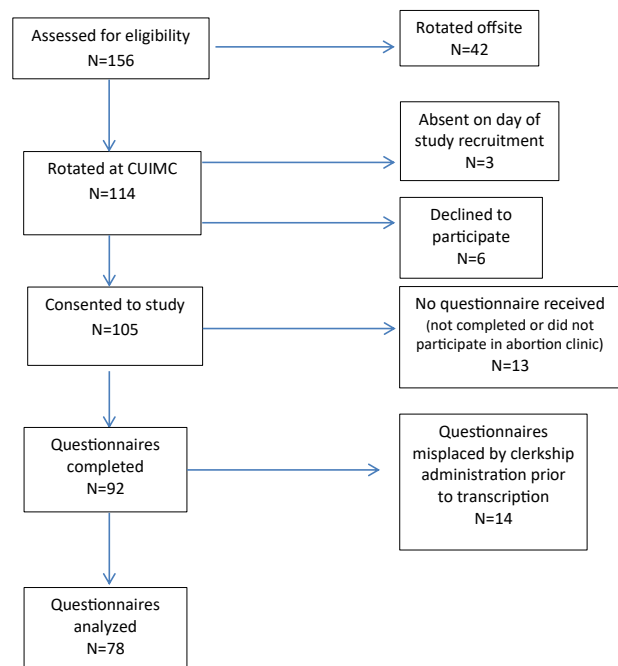


Figure 1. Medical students during the major clinical year at VP&S participating in their Obstetrics and Gynecology rotation from October 2014 to September 2015. CUIMC, Columbia University Irving Medical Center; VP&S, Vagelos College of Physicians and Surgeons at Columbia University Irving Medical Center.

that complemented lecture-based learning well. Medical student (MS) #58 said, “I learned a lot [more] about abortion ... than I would have internalized from textbook reading.” Students appreciated training at an institution “that allows for these services” (MS #85). For some, the experience provided value beyond just clinical knowledge. MS #19 found the opportunity to be “one of the [most] insight-provoking experiences during the major clinical year,” and MS #77 felt that “this was a valuable experience that I think every medical student should witness at least once before graduating.”

Challenged by the Experience

Although students valued the experience, many found themselves challenged by it. Student religious, political, and personal beliefs often contributed to this challenge. MS #54 noted that participating in abortion care allowed for exposure to “both sides of the issue ... It allows you to challenge your beliefs and reaffirm or modify them.” MS #65 stated that “despite being liberal and pro-choice about this matter, I still ... felt ‘something.’” Participating in the clinic exposed both of these students to new perspectives on abortion that they may have not otherwise experienced. Similarly, MS #90 described the contrast between prior views and those she experienced as a future clinician, stating, “I grew up in the south where ... people view [abortion] as murder, and ... I also felt that way. Now, as ... a medical student, I have a hard time understanding those feelings.”

Some students noted that the procedure itself differed from their expectations. Some found it less complex than expected, others more so. One student was “amazed by how quick and simple the procedure was” (MS #80), whereas another was “surprised by how much I was affected” (MS #70). Another expressed surprise that abortion was similar to watching “any other medical procedure” (MS #13). All of these students found their prior expectations challenged after participating in the clinic.

Multiple students expressed conflicting responses within the same sentence. Such tensions often prompted students to self-reflect. MS #43 felt “both uncomfortable and happy during the procedure”—happy because “the woman was in control of her body” but uncomfortable because “the chance for that fetus to live had ended.” Similarly, MS #1 “felt both a sense of sadness and liberation at the same time”—sad that the woman was “faced with that decision,” but heartened that the woman could “make a more stable life for herself.” MS #85 stated, “I think it was sobering in a way that I expected, but also empowering in a way that I didn’t expect ... I think in some ways we place too much gravitas around the procedure.” By reflecting on these juxtaposed opposing views, students navigated potential tensions around abortion care.

Patient Empathy

Some students demonstrated an ability to understand or even internalize the patient’s feelings. For some, empathy occurred when they sensed patient physical or emotional discomfort. MS #54 stated, “Because the patient was upset, I was upset. Every emotion she verbalized I internalized ... Watching this procedure made me feel distraught like the patient.” Similarly, MS #58 stated “the procedure itself appeared ... painful for this patient, so that made me feel uncomfortable, and I was relieved when it was finished.”

Table 1
Demographic Characteristics of VP&S Medical Students Who Consented to Completing Questionnaires in Response to a Clinical Abortion Experience from 2014 to 2015 Compared with All CUIMC Students and All U.S. Medical Students

| Demographic characteristics | Study participants* (n = 103) | VP&S [†] (n = 648) | AAMC [‡] (n = 85,128) |
|-----------------------------|----------------------------------|-----------------------------|--------------------------------|
| Age (y) | | | |
| 21–24 | 41 (40) | N/A | N/A |
| 25–27 | 37 (36) | N/A | N/A |
| >28 | 24 (23) | N/A | N/A |
| Sex | | | |
| Male | 53 (52) | 317 (49) | 45,301 (53) |
| Female | 50 (49) | 331 (51) | 39,827 (47) |
| Other | 0 (0) | 0 (0) | 0 (0) |
| Race/ethnicity | | | |
| Hispanic/Latinx | N/A | 66 (10) | 4493 (5) |
| Black, non-Hispanic/Latinx | N/A | 53 (8) | 5149 (6) |
| Asian non-Hispanic/Latinx | N/A | 104 (16) | 17,831 (21) |
| White non-Hispanic/Latinx | N/A | 330 (51) | 47,538 (56) |
| Subspecialty plan | | | |
| Undecided | 58 (56) | N/A | N/A |
| Women's health | 6 (6) | N/A | N/A |
| Surgical | 11 (11) | N/A | N/A |
| Nonsurgical | 28 (27) | N/A | N/A |

Abbreviations: AAMC, Association of American Medical Colleges; CUIMC, Columbia University Irving Medical Center; N/A, data not available; VP&S, Vagelos College of Physicians and Surgeons at Columbia University Irving Medical Center.

Note: Data are n (%).

* Data include all students who consented to the study, including those students who consented but did not complete the questionnaire or whose questionnaires were lost owing to an administrative oversight.

[†] Data include all students enrolled in CUIMC during the 2014–2015 academic year.

[‡] Data include all students enrolled in a U.S. medical school during the 2014–2015 academic year.

Other students felt a personal connection with the patients. One student expressed that the patient “made me think of myself and my friends in college and how any one of us could have been the patient” (MS #90). Similarly sharing in the patient's emotional state, MS #105 stated, “As the visit progressed, and it became more and more clear ... [that] this was a big moment in her young life [and] it became more personal for me.” These students saw themselves as having the potential to be a patient in the clinic, which heightened their ability to share in the patient's feelings.

Stigma and Judgment

Some students expressed feelings of judgment toward the patients, particularly when patients did not show remorse for choosing to terminate. MS #16 stated, “No [patient] was expressing any reservations or second thoughts about having a termination, which was surprising.” Other students were struck by patients who declined contraception, like MS #15, who stated, “I couldn't help but feel she was somewhat naïve to the severity of her decision as she refused IUD [intrauterine device] placement.” Similarly, MS #78 stated “though I do not pass judgment ... the idea of pregnancy termination—especially in situations that could have been prevented with adequate counseling and contraceptive use—is ... moderately uncomfortable.” These students describe frustrations when contraception is either not appropriately discussed or is not accepted by the patient.

Other students expressed judgment of the abortion providers, particularly when providers did not ask patients their reason for terminating. MS #84 stated that the abortion provider “did not really bring up any emotional aspects of the procedure, or reasons [that patients were] choosing termination.”

Commonly, students used language that created a dichotomy between abortion types, describing some abortions as “elective” and other abortions as “medically necessary.” MS #62 stated, “I

better [understand] how elective abortion procedures and patients that need these procedures have different obstacles.” This student implies that only certain women need abortions, and others simply choose to have them. Similarly, MS #48 stated, “I could never perform this procedure on a patient if it wasn't otherwise medically indicated.” This student draws a professional line—only imagining providing abortion care to those for whom it has been deemed “medically indicated,” although the student does not go on to define that distinction.

Reflections on Curriculum Changes and Future Careers

Although the school's curriculum was not specifically addressed in the questionnaire, students organically reflected on valuable aspects of the curriculum as well as the need for curricular change around teaching abortion. Several students cited the papaya uterine evacuation training as important in their understanding of abortion technique. However, some students felt inadequately prepared for the experience, particularly the emotional aspects. MS #37 voiced both of these sentiments, stating, “I didn't know exactly what to expect and there was little time to prepare myself mentally ... We did have the papaya tutorial ... so I had a sense of instrumentation and technique, but I never really thought more beyond that.” Similarly, MS #18 stated, “[The] moral and ethical considerations to an abortion ... were not addressed in any of the teaching sessions. ... I'm glad I went ... because I got to see what an abortion was, but there was no forum to talk about it afterwards.” Students indicated the need for further preparation beyond abortion techniques, and the need to reflect or debrief after the experience.

Many students indicated that the experience would impact them as future physicians and allow them to better serve their patients. Students expressed that they had gained knowledge on the abortion procedure, which would make them “more comfortable discussing termination as an option” (MS #16) and

make them “better [at] counsel[ing] patients in the future if they are confronted with such a decision” (MS #8). Others described the experiences as benefiting not only their clinical knowledge, but also their emotional development. One felt that the experience would “make me a more compassionate and stronger clinician in the future” (MS #104) and another that it “contributed to emotional development that I can definitely employ as a future physician” (MS #75).

Discussion

Student responses to open-ended questionnaires revealed that students found the experience of participating in an abortion clinic deeply worthwhile. However, they were both challenged and surprised by their responses, particularly when these responses conflicted with prior beliefs. Students demonstrated empathy for the patient undergoing an abortion, especially when she was experiencing discomfort, or when they saw themselves as having the potential to be in her situation. Other students expressed judgment of the patient or the abortion provider. Judgment arose when patients did not exhibit remorse for choosing abortion, and when patients declined contraception. Students requested changes to the current abortion curriculum to allow for debriefing and reflection. Many students felt that the experience would prepare them to serve future patients with more medical accuracy and compassion.

Our findings—that medical students find participating in abortion care worthwhile, exhibit empathy toward the patient, and are challenged by the experience—complement prior qualitative work studying resident physicians undergoing abortion training. For these more advanced resident learners, abortion training encourages empathy and professionalism, and allows for a more nuanced understanding of women seeking abortion (Freedman, Landy, & Steinauer, 2010; Kumar, Herbitter, Karasz, & Gold, 2010; Singer, Fiascone, Huber 3rd, Hunter, & Sperling, 2015; Stewart & Darney, 2003). Similarly, qualitative work studying fourth year medical students who sought additional abortion training after their core Ob-Gyn clerkship shows that these students also find the experience worthwhile and satisfying (Veazey, Nieuwoudt, Gavito, & Tocce, 2015). In contrast with our findings, these more advanced students do not report finding their prior beliefs about abortion significantly challenged (Singer et al., 2015), whereas many of our students did. These conflicting findings highlight the importance of studying a larger population of students earlier in their training who likely have more diverse attitudes toward abortion, rather than those who have self-selected to seek additional abortion training.

In our study, some students expressed judgment of the patient or the abortion provider, particularly when a patient refused contraception or when a provider did not ask why the patient sought abortion. We know from prior qualitative work that most women seeking abortion are confident in their decision, and prefer not to discuss it with a health care provider (Foster, Gould, Taylor, & Weitz, 2012; Kumar et al., 2004; Skeldastad, 1994). Similarly, although some women seeking abortion services appreciate the opportunity to discuss contraception (White, Portz, Whitefield, & Nathan, 2020), others may prefer not to (Cansino et al., 2018). Tailoring contraception counseling and provision to each patient's diverse needs and preferences is vital to providing patient-centered care. These gaps between patient preferences and student perceptions require attention.

Our participants used the word “elective” as distinct from “medically necessary” to describe some abortions. In interviews with graduating medical students, Smith, Bartz, Goldberg, and Janiak (2018) found a similar dichotomy in language. The authors call on educators to “clarify professional communication” around abortion as such language indicates some abortions are morally justifiable, and others are not (Janiak & Goldberg, 2016), which may perpetuate abortion stigma.

Strengths of our study include the use of an entire academic calendar of medical students. Despite the loss of some questionnaires to an administrative oversight, we were able to analyze questionnaires from 78% of students who consented to the study, or 68% of all students rotating onsite at CUIMC.

Limitations of our study include the use of questionnaires. Although the questions were open-ended, we were unable to probe student responses. However, the anonymity of a written questionnaire may allow for more open expression, which could decrease social desirability bias. Time has passed since the collection of these data in 2014–2015. Student views may have changed in the intervening time based on outside factors such as a shifting political climate. Additionally, our results may not apply to medical students outside of our clinical setting. New York State is politically progressive with few restrictions on abortion care compared with other states (Guttmacher Institute, 2018), which may affect how students respond to abortion care. Future studies could explore more politically conservative settings. Finally, we were not able to assess students who declined participation in the clinical abortion experience.

Implications for Policy and/or Practice

This study uses qualitative analysis to explore medical students' reactions to abortion care during the Ob-Gyn clerkship. Student reflections on the valuable aspects of the rotation could be used by educators to inform abortion curricula—for example, that students value the experience and feel it will better prepare them to serve future patients.

Understanding the reactions of students who are challenged by the experience is also critical, especially because many felt inadequately prepared for the emotional aspects of the experience. These student reflections highlight the tensions that can arise when students participate in abortion care. Opportunities for student reflection and debriefing should be added to student curricula. In addition, exposing students to patient preferences in abortion care may equip them with the tools to provide sensitive and patient-centered care. This process could include student engagement in narrative medicine or values clarification workshops, or abortion patient panels.

Conclusions

Medical students, regardless of their chosen career, may encounter a pregnant patient who seeks abortion care. The student's only exposure to this common yet potentially sensitive topic may occur in a brief clinical encounter. Our findings provide a foundation for future abortion curricula tailored to student needs, inclusive of varying perspectives, and centered on the needs of patients.

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Supplementary Data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.whi.2020.06.004>.

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