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Authors

French, Valerie A

Hou, Melody Y

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Abortion education for medical students in an era of increased abortion restrictions

Valerie A. French, MD, MAS[1] and Melody Y. Hou, MD, MPH[2]

[1] Department of Obstetrics and Gynecology, University of Kansas Medical Center; vfrench@kumc.edu

[2] Division of Family Planning, Department of Obstetrics and Gynecology, University of California Davis Medical Center; myhou@ucdavis.edu

Corresponding Author: Melody Hou, myhou@ucdavis.edu ph 916 734 6918 fax 916 734 6666

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Abstract

Following the Supreme Court's decision in *Dobbs v Jackson Women's Health* in June 2022, many states restricted or banned abortion. Medical educators have focused on how this change impacts abortion training for residents, but schools must also adapt undergraduate medical education. Medical schools provide the foundation for future physicians' knowledge and attitudes on abortion. Comprehensive, high-quality abortion education for all medical students is essential for the future of abortion care. Here we present how education champions can lead curricular improvements in abortion education in the pre-clinical, clerkship, and post-clerkship phases of undergraduate medical education.

Keywords: abortion, family planning, medical education, medical students, curriculum, Dobbs

Introduction

Approximately 121 million unintended pregnancies occur globally each year, with 61% ending in abortion.[1] In 2020, over 930,000 abortions took place in the United States.[2] Thus, physicians of all specialties need training in pregnancy options counseling and a general understanding of abortion care. Ensuring an adequate physician workforce capable of providing abortion care begins with medical student education. In 2022, the International Federation of Gynecology and Obstetrics, the World Association of Trainees in Obstetrics and Gynecology, and the International Federation of Medical Students' Association released a joint statement supporting medical schools around the world to integrate of abortion education as a routine and essential part of the curriculum.[3] Scholars have called for marked improvement and standardization of abortion education in the United States, arguing that "abortion care is an essential but a currently neglected topic in medical student education."[4] However, the 2022 *Dobbs v Jackson Women's Health* decision by the U.S. Supreme Court has resulted in more disparate abortion access across states, and undergraduate medical education in abortion care will likely follow.[5,6] Beyond abortion care, physicians practicing in areas with abortion restrictions have experienced confusion and difficulty navigating fertility treatments, miscarriage management, and ectopic pregnancy care, often leading to sub-standard care.[7–10] Thus, the preservation and enhancement of abortion education is critical to the next generation of physician's ability to care for patient's reproductive needs.

The benefits of abortion education are clear—standardized assessments of students with formal pregnancy options counseling education demonstrated improved communication skills on Objective Structured Clinical Exams (OSCE).[11,12] Student knowledge in abortion care significantly improved after a reproductive health externship focused on abortion care.[13] Student learning improves when abortion education is formalized as part of the curriculum—medical student competency and knowledge was higher after a structured clinical abortion curriculum when compared to ad hoc experiences.[14] Medical students have also expressed interest in learning about abortion,[15] citing dedicated abortion education during their clinical years as "highly valuable".[16] Despite these known benefits, abortion education is

lacking in many medical schools' curricula.[4,17] One study of US medical schools found that 23% offered no formal education during the obstetrics and gynecology (OBGYN) clerkship and 32% offered one abortion-focused lecture, and that abortion education was altogether absent in both the pre-clinical and clinical years in 17% of respondents.[18]

We intend this paper to serve as a guide for medical education leaders to ensure that their curriculum includes excellent, level-appropriate abortion content throughout medical school. We recognize depending on the institution, some educators may want to enhance an already strong abortion curriculum, some will address specific gaps in their abortion content, and still others will need to implement abortion education into their curriculum. No matter what the current needs are at an institution, we call on medical education leaders to gather a team of champions to build a high-quality, comprehensive abortion education for the next generation of physicians.

Implementing/optimizing abortion education: a roadmap

Education champions should take a systems-approach to abortion care exposure and training to best address the education needs of medical students. We recommend a stepwise approach, outlined in Figure 1.

Step 1: Identify stakeholders

Understanding the individuals who will be directly and indirectly affected by abortion education will prepare education champions for the journey forward (Table 1). Students are a powerful force with significant influence on the curriculum.[19] Many medical schools have a student-run chapter of Medical Students for Choice (MSFC), an international organization aimed to expand family planning education opportunities for medical students, which can help organize student efforts. Performing a needs assessment as a joint effort with medical students and pertinent course directors will highlight curricular

needs around abortion education that can then motivate other stakeholders, such as curriculum or education deans. Key players will include those already involved in medical student education, such as the pre-clinical reproductive block director, clerkship director, and the dean of curriculum. Champions should also identify those stakeholders not directly involved in overseeing medical education, including hospital and clinic staff, free-standing clinic liaisons, and administrative support. Drawing from lessons learned from the Ryan Residency Training Program in Abortion and Family Planning, champions should take concerted, longitudinal and multidisciplinary efforts to shift the culture in abortion education.[20]

Due to the often-polarizing nature of abortion care, early engagement of leadership (vice chancellors, medical student deans, department chairs, etc.) can help garner support in the process of implementing medical student education on abortion. Within the institution, abortion education champions can identify those individuals who already have institutional capital to support improved abortion education. The institutional organization chart ("org chart"), which shows the relationship hierarchy of deans and directors, will help direct educators to those officially responsible for different parts of the curriculum and student affairs. Beyond the official organizational network, the MSFC chapter advisor and the OBGYN residency program director (who will have implemented the Accreditation Council for Graduate Medical Education (ACGME) abortion training requirement in some way for the residents) are additional recommended contacts to consider.

Outside of OBGYN, support may come from unexpected places, including other specialties or professions. Perhaps a hospital pharmacist has worked on approving mifepristone for institutional use or a social scientist within the university is researching abortion access. Once the abortion education champion (or team of champions) has a good understanding of the key personnel who can facilitate and support abortion education, goals and objectives can be addressed.

Step 2: Establish shared goals

As in any area of education, a shared vision with objectives lays the groundwork for next steps. What are the shared goals of the vested personnel and educational champions to implement or optimize abortion education? The mission of the Association of American Medical Colleges (AAMC) is to "improve the health of people everywhere" and outlines clear action plans for their objectives.[21] Similarly, the medical school's mission and vision statements can serve as a guide for what is essentially values clarification for the institution - many schools' mission and vision statements include equity (Boston University,[22] Vanderbilt University[23]), diversity (Icahn School of Medicine at Mount Sinai,[24] University of California, San Francisco[25]), compassion (Northwestern University,[26] Medical College of South Carolina[27]), or serving or partnering with their communities (University of South Florida,[28] University of Utah[29]), which would all be supported by abortion education. Setting common ground with key personnel serves as anchor to build the goals and objectives for excellent medical education on abortion care.

Step 3: Outline abortion educational objectives

In the US, the Association of Professors in Gynecology and Obstetrics (APGO) has outlined Educational Objectives for medical students including pertaining to abortion, stating that students should be knowledgeable about the techniques, patient safety implications, and public health importance regardless of personal views.[30] Assessment also drives curriculum[31,32] – induced abortion is listed in the National Board of Medical Examiners (NBME) United States Medical Licensing Examination (USMLE) content outline, under Pregnancy, Childbirth & the Puerperium, Abnormal processes: Obstetrical complications.[33] Per accreditation standards, every school has a curriculum committee who oversees the content and implementation of curriculum,[34] often advised by a dean of curriculum or dean of education. Presenting data regarding curricular gaps in education, student demand, and potential for external assessment to this committee is critical for curricular revision. Referencing medical school program objectives, sometimes called graduation competencies, can also help with this.[35,36] Schools often rely on competencies

(knowledge, patient care, interpersonal and communication skills, professionalism, systems-based practice, life-long learning) to assess whether students are ready to enter residency,[37–41] and abortion care provides a professional identity development opportunity for professionalism and systems-based practice that may not be as prominent in other areas of the curriculum.

Step 4: Clarify institutional and legal context

Philosophies and educational objectives supporting teaching abortion care at the medical school can conflict with university or state policies, creating logistical barriers. With the 2022 *Dobbs vs. Jackson Women's Health Organization* Supreme Court decision, many states experienced significant changes in the legal landscape of abortion care, with multiple states banning abortion.[42] An understanding of the institutional and state policies, laws, and culture will guide education champions – how openly is abortion discussed? What can be incorporated and what would require change to achieve the desired outcomes? In some states with abortion bans, educators may be asked to submit their curricular materials on reproductive health care to an external entity for review. Understanding the local laws, informal rules, and culture of the institution will inform the approach to building curriculum on abortion care. Identified stakeholders should be active in this process. Implementation of a school's newly established philosophy and educational objectives on abortion care within these parameters requires creativity and innovation, and will look different in the pre-clinical, clinical, and post-clerkship curricular phases. Teaching the physiology and basics of abortion care in the classroom will be more influenced by the school's individual philosophy, but practical and experiential training in abortion care in the clinical curriculum will be supported or limited by institutional restrictions. Clinical experiences may reflect what has occurred to secure residency training in abortion.[4,20] This includes partnering with neighboring freestanding or community clinic settings such as with Planned Parenthood for clerkship experiences, though availability of these clinics may be limited by state laws. In a more restricted setting, using the educational resources discussed below and assessing student competencies in interpersonal and

communication skills or professionalism aspects of abortion care via simulations or standardized patients may be required. Oversight of the thread of abortion care throughout the curriculum will help ensure sessions are complementary and not redundant, since curricular efficiency in a time-limited curriculum is critical.[43,44] If there are limitations in clerkship experiences, students may seek visiting or "away" rotations during the post-clerkship phase at other, more permissive institutions – will the school permit credit for these rotations at other schools? Periodically referencing the philosophy and objectives already created in Steps 2 and 3 will help keep the implemented curriculum from drifting too far from the original goals.

Step 5: Map abortion educational objectives to medical school curriculum

With these shared objectives in mind, we provide ways to integrate abortion into the pre-clinical, clinical/clerkship, and post-clerkship education. The comprehensive abortion curriculum at one institution includes coursework in the pre-clinical years and clinical experiences totaling 19 hours of exposure.[45] We further provide an overview of the abortion curriculum at three academic institutions in the US in Table 2. Examining your school's previous history in abortion curricula is critical – identify what worked or did not work, and the reasons for those success and failures in case the academic milieu has changed. Previously reported abortion curricula may help education champions determine how abortion education best fits within their institutions at the pre-clinical, clinical/clerkship, and post-clerkship stages.

Overall approach

Educators should ensure that sessions pertaining to abortion provide quality content in a way that engages students, grounded in Bloom's Taxonomy of Educational Objectives.[46,47] Students with positive learning experiences are more likely to provide favorable feedback, promoting the longevity of the program. For example, many students are excited by hands-on activities, so workshops demonstrating uterine aspiration on a papaya or dragon fruit model can engage students actively with the procedure. Developing high-

value skills such as counseling, which are critical for students to master no matter what specialty they intend to practice, can also be accomplished through interactive learning sessions. We outline some sample approaches to curricula in the pre-clinical, clerkship and post-clerkship experiences. These learning sessions can be adjusted within the four years of medical school to meet the needs of the institution.

Pre-clerkship/pre-clinical phase:

Most medical schools have 12-24 months of a pre-clinical phase, with a specific block of time devoted to reproductive topics.[48] Often the pre-clinical curriculum is fraught with competing priorities, such as USMLE Step 1 preparation, clerkship readiness, and new curriculum accreditation demands such as interprofessional education. Content time in the pre-clinical phase is often portrayed as a zero-sum issue – curriculum time devoted to one topic means curriculum time cut from another. This framework helps provide context for the work of stakeholders championing abortion education. How does abortion education play into the broader goals of the medical school's educational mission? Anticipating the priorities of those in leadership will allow those people, who have the power and ability to implement change, an easier time saying "yes". Having established a mission-oriented philosophy, schools may decide the following case examples:

- Time devoted explicitly and specifically to abortion topics – covering pertinent basic science, clinical science, and health system science in a pre-specified time period.
- Interweaving abortion throughout pre-clinical teaching, for example, using medication abortion to teach pregnancy physiology and reproductive pharmacology by discussing hormone agonists/antagonists and prostaglandins; referencing abortion explicitly as a treatment option for obstetrical complications including unwanted pregnancies or congenital anomalies; or using a case of a patient seeking an abortion to explore health system science issues such as social determinants of health and value-based care.

In both methods, a shared terminology must be established, including clear definitions of pregnancy and implantation[6] and using the term "induced abortion" rather than other terminology that carry implicit bias and stigma.[49]

We recognize creating new content and assessing its impact can be difficult. MedEdPortal[50] contains peer-reviewed abortion curricula that can be adapted for use at individual institutions.[51–55] These portfolios include interactive, flipped classroom pedagogies that engage students better than traditional lectures with similar content retention.[56] Educators at one medical school designed a problem-based learning session to teach pregnancy options counseling and abortion care in the pre-clinical phase,[51] while others have developed team-based learning sessions for the OBGYN clerkship that could be translated to pre-clinical courses.[57] Some students have found the need for abortion education so important that they designed and implemented their own dedicated pre-clinical abortion curriculum, including both lectures and small-group discussions, which can be enacted at other institutions.[58] APGO also has a video[59] and teaching case[60] pertaining to their Pregnancy Termination learning objective described above. If schools manage multiple campuses, using centralized repositories such as Innovating Education in Reproductive Health,[61] which provides video-based education on family planning topics, can provide consistent instruction.

Assessment often drives curriculum.[31,32] Ensuring that student assessments also include abortion would emphasize the importance of this topic to the practice of medicine. Harkening back to the team's shared goals, the NBME Customized Assessment Services[62] contains multiple-choice questions retired from USMLE Step and Subject exams on abortion that can be used to support any instructor-created assessments. Instructor-created assessments should hew closely to the established abortion learning objectives.

In addition to teaching specific content on abortion, schools can also use abortion care as a setting or context for key clinical skills in preparation for clerkships:

- *Ethics and Values clarification:* Some schools will introduce abortion during the pre-clinical curriculum as the setting to discuss ethics. We urge caution, since attempting to instill a consistent framework of what is "ethical" vs "unethical" early in medical school with such a socially polarizing topic may risk alienating students who may not support access to abortion if not conducted carefully.[63] An ethical framework may also induce moral distress in students located in regions where restrictions would prevent them from offering abortion to patients.[64] Thus this exercise may not be an efficient use of the limited time available. We suggest instead exploring abortion as a values clarification opportunity, since discussion of differing beliefs, principles, and emotions often will motivate students to explore how these may conflict and change given certain circumstances.[65] Several published approaches to values clarification have been described, recommended, and successfully implemented around the world.[66–68]

- *Communication skills:* Pregnancy options counseling provides an opportunity for students to learn and practice communication skills and their response to difficult emotional encounters. A formative OSCE, developed through an iterative process at the University of Miami,[12,53] describes a scenario of a patient with a new diagnosis of an early unplanned pregnancy, with the only required preparation being an online module. Students completing the content-validated OSCE were able to highlight their communication strengths and areas needing improvement, with positive reactions to the module and OSCE experience for increasing their comfort with skills and moral comfort with nondirective options counseling.[54]

- *Professionalism and lifelong learning:* students may unintentionally feel negative emotions towards patients in uncomfortable scenarios, and practicing patient-centered care in a safe,

simulated condition of a situation which may cause students discomfort, such as with a patient choosing abortion, is critical to students' professional development. A workshop in which participants discuss and self-reflect on their attitudes for caring for people with unintended pregnancy increased participants' comfort in caring for these patients, with participants intending to employ self-reflection and empathy in future challenging interactions.[69] Other self-reflection exercises such as Narrative Medicine also increased student scores in an OSCE on pregnancy options counseling.[11]

Educational materials published in MedEdPortal are meant to be shared with all instructors for use within their own institutions, including videos, cases, and assessment tools. If instructors wish to modify or construct new modules, we caution about using stereotypical representations of individuals seeking abortion, such as presentations of patients seeking termination solely for fetal indications, or portraying patients seeking abortion only in difficult social situations (active substance use disorder, experiencing homelessness, etc.).

Education champions should also explore co-curricular opportunities, particularly if the official curriculum cannot or will not accommodate abortion topics. Medical student interest groups are most active during the pre-clinical years, posing an ideal place for focused learning. These groups can sponsor or host a lecture series or hands-on workshops that stimulates student body interest, which can in turn prompt medical schools to change formal curriculum. Students motivated to learn about abortion will seek out and attend these learning sessions, adding additional leverage for broader curricular change.[70]

Some schools may also have student groups who sponsor anti-abortion activities. Conscientious objectors should feel safe in expressing their views, yet care should be taken regarding the potential for misinformation at such events and what could be perceived as implied school support of these views. Guidelines on the use of school resources such as publicizing via official listservs or funding for these

speakers should be specified, as should be the identities of the group(s) officially sponsoring the event. Instead, it may be more helpful for early learners to see co-sponsored events between pro- and anti-abortion groups that encourages curiosity and open discussion, such as hosting an interfaith panel of religious community leaders on general and personal perspectives on guiding members of their congregation on abortion.

Medical students during all four years of medical school who seek earlier or additional clinical exposure to abortion care may choose to participate in a Reproductive Health Externship through Medical Students for Choice.[71] Students report improved abortion knowledge after this voluntary learning experience, particularly with regard to counseling in abortion care.[13]

Clerkship/clinical phase

During the experiential clinical/clerkship phase, students' exposure will be influenced by the health system in which they work. Working within a coalition of clerkship directors, in whose clerkships a student will likely encounter patient discussions about unintended pregnancy, will provide further support. In most schools, these clerkships are most likely OBGYN,[30] outpatient internal medicine and family medicine,[72] and pediatrics.[73] Together the clerkships can establish the expected required clinical activities students should complete to achieve the school's program objectives,[74] which can include abortion-related activities such as pregnancy options counseling.

If abortion care is not available within the institution, consider agreements with neighboring freestanding or community clinics such as a local Planned Parenthood who have opportunities for students to participate in abortion care. Agreements also should consider any onboarding required of the student, such as background checks, immunization records, and malpractice insurance documentation. Educational leaders should outline sustainable processes for onboarding and maintaining student

schedules, including staff coordination and ownership. Careful attention is required as many clinics host multiple types and levels of learners.

Some schools may have limited clinical access to abortion learning for trainees such that abortion exposure for students may require an "opt-in" experience. The experience described at one school is that all students learn content on abortion care through didactics and reading assignments, but students may choose to supplement this content with a 1-day clinical exposure.[75] During this day, students may elect to increase or decrease their participation or observation in history taking, ultrasound, counseling, and uterine evacuation. At institutions where abortion care must be constructed as an opt-in activity for medical students, this short, flexible experience may allow clinical exposure to abortion care to more students.

If the clinical setting does not allow any abortion exposure opportunities, clerkship didactics can be a time for learning pregnancy options counseling and exploring values clarification and ethics in the context of experiential patient care as discussed in the *pre-clinical phase* section. Adding simulation can be particularly valuable to students, who appreciate hands-on learning opportunities. Use of papayas or dragon fruit as uterine models has been described to teach procedural abortion via uterine aspiration.[52] Materials such as papaya simulation workshops can be obtained from national organizations such as Medical Students for Choice and Ipas[76], and pharmaceutical companies often will share resources like intrauterine device trainers. Buy-in from the institution in creating this curriculum will require support for faculty staffing for simulation and teaching, and cost of single-use supplies such as papayas or dragon fruit.

Clerkship assessment of abortion knowledge can include relying on multiple choice questions on the NBME subject exam, also known as the shelf exam, as described above, or creating instructor-written exam questions specifically built to address the existing curriculum's learning objectives. Assessment of

skills can be done through requiring pregnancy options counseling participation as a required clinical activity to complete the clerkship or conducting an observed structured clinical exam (OSCE) on options counseling, both which would also allow assessment of interpersonal and communication skills and professionalism as described above.

Certain students will opt out of clinical abortion experiences for religious or spiritual reasons. Establishing an equitable process for opting out of clinical care is critical, as is ensuring a discussion with the individual student on how they can achieve clerkship learning objectives and required clinical activities despite opting out.[63] Counseling the student of the potential consequences of opting out, which limits their clinical learning opportunities, is imperative, particularly since ACGME milestones across residency specialties upon entrance includes demonstrating baseline interpersonal and communication skills and professionalism.[39] These competencies are also part of the Physician Competency Reference Set from the AAMC, which includes sensitivity, respect, and accountability to a diverse patient population, and a responsiveness to patient needs that supersedes self-interest.[41]

Post-clerkship

The post-clerkship phase serves as a student's opportunity to take a deeper dive into the responsibilities and complexities of clinical care in preparation for residency. Education champions may decide that their volume of abortion care allows for an abortion-focused post-clerkship rotation at their institution aligning with the mission of their school. Schools often have a process for the creation of new courses, including generating learning objectives[46,47] mapped to graduation competencies, making a workload schedule that allows students to achieve those learning objectives, developing grading criteria, and determining the duration of the course and number and type of credits this new post-clerkship rotation will offer. The abortion volume available will likely dictate the level of student responsibility and workload, and thus whether the post-clerkship rotation is considered an advanced clerkship course or a sub-internship. This

determination will have graduation implications, since schools often will have graduation requirements regarding the type and number of post-clerkship courses a student must complete.

The course director should also develop a formal didactic curriculum to accompany the experiential component. We suggest that course directors create a cloud-based repository for this curriculum for students to access asynchronously, which allows students to process the material at their own pace. We recommend updating this curriculum regularly with mix of video-based resources, potentially including those developed by Innovating Education[61], and readings that include institutional standard operating procedures and consents, landmark family planning articles, Society of Family Planning (SFP),[77] National Abortion Federation (NAF),[78] or American College of Obstetricians and Gynecologists (ACOG)[79] clinical guidance or practice bulletins, or chapters from trusted references such as Contraceptive Technology,[80] Speroff & Darney's Clinical Guide to Contraception,[81] or Contraception for the Medically Challenging Patient.[82] The course director may also consider incorporating modules from the Ryan Program Didactic Curriculum[83] developed for the Kenneth J. Ryan Residency Training Program if they have access. If opening the course to visiting students becomes a goal, either to grant learning opportunities to students who otherwise are without access to abortion education or to help recruit future residents, visiting students' home institution will appreciate being able to review the proposed workload schedule and formal curriculum to determine how to award their own course credit.

Educators, particularly at institutions where abortion services may be limited, should recognize that post-clerkship students may complete visiting rotations at other institutions to increase their chances for matching at a particular residency program[84] or to learn about subspecialty care and topics to which they had no or limited exposure at their home institution, such as abortion. [85] Medical schools who have developed abortion-focused post-clerkship courses will often provide opportunities for visiting students to complete their rotations, either independently, through the Reproductive Health Externship by Medical Students for Choice,[71] or through the AAMC Visiting Student Learning Opportunities (VLSO) program.[86]

We strongly feel that students should be allowed to seek opportunities to improve their clinical abilities to care for future patients, particularly when the students are paying tuition for their medical education. However, schools may decline to grant course credit for specific clinical rotations that pertain to abortion, which becomes punitive if students otherwise cannot meet minimum course credit for timely graduation. Other logistics may limit a schools' ability to give credit for a clinical abortion rotation – for example, a student is able to spend two weeks at an abortion clinic, but the school requires four-week rotations for credit. How can the faculty champion communicate with the originating institution to ensure that the learning opportunity still occurs and is recognized? If a student identifies a learning opportunity for abortion care that requires travel and/or malpractice coverage, how can schools support the student to obtain that experience without financial hardship? Some medical schools have scholarships for visiting students.[86] Understanding the qualifications for these scholarships (or even developing them!) marks an engaged medical education team.

Step 6: Assess outcomes and provide feedback to stakeholders

Once a new curriculum on abortion care has launched, ongoing maintenance and assessment are required. These ongoing assessments ensure that the content stays current and relevant, provides opportunities for improvement, and identifies any remaining curricular gaps. We recommend formal student feedback and assessment about learning sessions, surveying both reaction (Kirkpatrick Level 1: do learners enjoy the training and feel it is relevant to their work?) and learning (Kirkpatrick Level 2: do learners acquire the intended knowledge, skills or attitudes?).[87] In the pre-clinical phase, many schools have standardized feedback venues for didactics, but this is often more varied in the clerkship and post-clerkship phase. Depending on the feedback, adaptations may be integrated into the curriculum or reviewed with key personnel to determine if changes are needed. This kind of assessment also is an opportunity for publishing and adding to the literature regarding abortion in undergraduate medical education.

The implementation of an excellent, comprehensive abortion curriculum also warrants celebration. We recommend liberally using faculty meetings as a time to spotlight improvements in abortion education at all levels. Opportunities to give kudos to faculty champions[88,89] allow for work to be honored in a public manner. Abortion education champions can provide positive student feedback to key personnel involved in developing and implementing the curriculum. A brief conversation in the hall with a department chair about a student's positive experience during a case-based learning discussion on abortion brings the previous abstract work into reality. Letting the residency program director know that one of their residents enjoyed having a student rotate with them at an offsite, free-standing abortion clinic reinforces the value of previously done work. When possible, monitoring and reviewing student performance on abortion-related content on exams can demonstrate the effectiveness of the new curriculum. Some institutions have dedicated education retreats where many topics in medical education are covered. A discussion about what and how abortion education occurs at such an event is timely in the wake of the Dobbs decision.

Navigating challenges and ensuring sustainability

We recognize that the stigma surrounding abortion and individual's range of personal feelings about abortion will present challenges to implementing abortion education. Students may voice concern that a "balanced view" of abortion is not presented during didactic sessions or decline to participate in clinical care that includes abortion. We recommend carefully considering these student concerns. Teaching around abortion should include a comprehensive review of the medical facts around abortion with an approach that centers on "what is an abortion?" rather than "is an abortion a valid choice?" While abortion is a heavily regulated and often politicized procedure, it remains a safe, common, and evidence-based part of healthcare.[90] We have found that setting the stage before each learning session on abortion with ground rules and expectations helps students navigate the often-polarizing topic of abortion care. Simultaneously, we do not require that students participate in abortion care if they choose not to. We

recommend clear communication about information that will be covered on their assessments, but honor student desires to opt out of participating in abortion care.[63]

The conversation around abortion stigma often centers around creating space for those who may personally oppose abortion and allowing for a comfortable way to decline participation in abortion care. We, the authors, feel that is equally important to create learning opportunities for those in support of abortion care. Scholars have described conscientious provision of abortion, the concept that caregivers are compelled by their conscious to offer abortion services.[91] Plainly stating to learners that the spectrum of feelings they may experience around abortion is 1) diverse, 2) valid and 3) consistent with those of patients gives voice to learners coming to the conversation from a variety of perspectives. Scholars have described the importance of listening to student viewpoints and allowing a safe environment to share different perspectives.[63] Listening, particularly by faculty, shows respect for the student and fosters trust. An honest conversation about the variety of perspectives within the community of abortion providers and comfort with "agreeing to disagree" sets a tone for discussing abortion care with students in a way that allows each student to voice their thoughts.

Beyond the stigma surrounding abortion, educators may face challenges when determining where to place students for clinical abortion learning and how many students the abortion providers can accommodate. Depending on the availability of abortion at a given medical center or region, medical educators may need to stratify which learners spend time with clinical abortion care. Should all medical students rotate through an abortion service, regardless of their support or interest in abortion care? Should priority be given for clinical abortion experiences to learners who are seeking those opportunities? Following the Dobbs decision, we saw dramatic changes in abortion care delivery by state.[92,93] Many abortion clinics are experiencing increased volume[94] and may find teaching students to detract from their ability to deliver efficient clinical care. These pressures experienced by clinics should be considered when arranging clinical learning opportunities. For schools that rely on free-standing clinics for learner exposure to

abortion care, we encourage educators to communicate with the clinic about ways to streamline taking on learners and decrease the "work" of accepting a student: how can the faculty at the home institution prepare students with didactic information prior to the clinical experience? Are there neighboring medical schools or advanced practice provider programs who are seeking similar opportunities for their students at the same clinic? Collaborating on a joint proposal and then joint scheduling and programming may help both schools and streamline the experience for the affiliate clinic. Relationships with the affiliate clinic can be maintained with involvement with the school community such as teaching awards and invitations to celebratory events. We recognize that each institution will have a unique arrangement with the medical school and differing access to abortion.

Conclusion

Building and implementing excellent education on abortion care for medical students presents unique challenges directly related to the current geopolitical environment. Abortion education champions must often be strategic and persistent to ensure that medical students have access to evidence-based and unbiased abortion education. Despite these challenges, students value abortion education and will need foundational skills in pregnancy options counseling to become patient-centered physicians. The process of creating a team and developing a plan to start or improve abortion education can be onerous and frustrating. While we, the authors, have certainly had to navigate challenges, we have found the process one of the most rewarding parts of our career. With dedication and innovation, abortion education champions can build a team of stakeholders, identify a shared vision, develop, and implement a comprehensive, high-quality, and sustainable abortion curriculum for the next generation of physicians.

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Figure Legends:

Figure 1: Steps to implement and optimize abortion education in a medical school curriculum.

Table

Table 1. Stakeholders to engage in building abortion education into medical school curricula

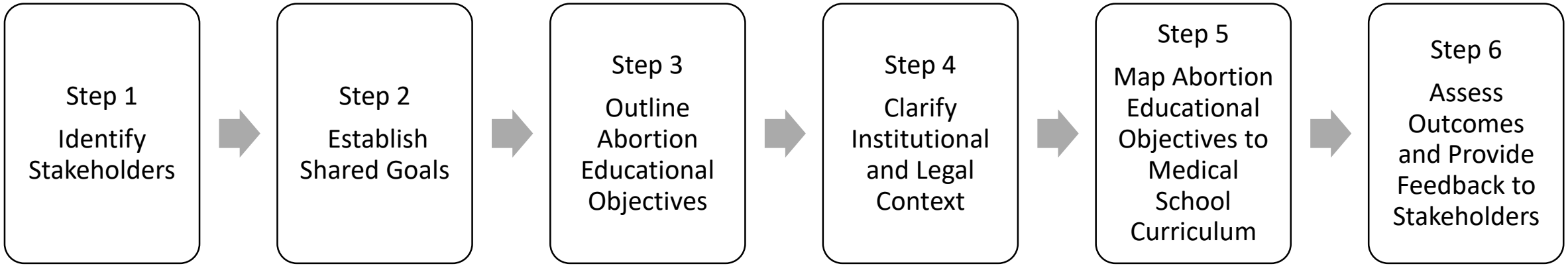
School of Medicine Personnel	School of Medicine Dean
	Dean of Curriculum
	Dean of Student Affairs
	Reproductive pre-clinical block director
	Student assessment director or team
Clinical educators	Clerkship directors (obstetrics/gynecology, pediatrics, family/outpatient medicine)
	Clerkship coordinator
	Residency program directors (obstetrics/gynecology, pediatrics, family/outpatient medicine)
	Sub-internship director
	Medical Students for Choice faculty advisor
Other key leadership	Department chairs
	Vice chancellor
Affiliate clinic partners	Clinical providers
	Onboarding personnel and volunteer coordinators
	Students that have previously rotated at the affiliate clinic
Additional support	Faculty with an interest in abortion research
	Student interest group advisors
	Residents interested in abortion training

Table 2. Sample abortion education curriculum maps

	Pre-clinical	Clerkship	Post-clerkship
School with no abortion at primary teaching hospital, abortion banned in state	Family planning lecture including abortion care	Annual papaya workshop for interested students Values clarification for students assigned to a specific mentor	Active Medical Students for Choice Chapter
School with no abortion care at primary teaching hospital, abortion legal/available in the state	Lecture on abortion care Case-based learning session (small groups) with an unplanned pregnancy	Flipped classroom on abortion care Papaya workshop Values clarification	Family planning elective rotation for 4th year students at local abortion clinic Active Medical Students for Choice Chapter

	Large group session on abortion care	Half day rotation in early pregnancy clinic (office uterine aspirations for miscarriage, pregnancy options counseling)	
School with abortion available at primary teaching hospital, abortion generally available throughout state	Abortion integrated across pregnancy-related lectures Values clarification Annual papaya workshop	Flipped classroom on abortion care Half day preop clinic and full day abortion provision in operating room Half day rotation in family planning clinic (contraception, office aspiration, medication abortion, miscarriage management)	Family planning elective rotation for 4th year students at the hospital-based clinic

Figure


Step 1
Identify Stakeholders
Step 2
Establish Shared Goals
Step 3
Outline Abortion Educational Objectives
Step 4
Clarify Institutional and Legal Context
Step 5
Map Abortion Educational Objectives to Medical School Curriculum
Step 6
Assess Outcomes and Provide Feedback to Stakeholders