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Anesthesia providers’ perspectives on abortion provision: a qualitative study

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Anesthesia providers’ perspectives on abortion provision: a qualitative study

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**Abstract**

**Background:** Hospital-based abortion care can be affected by abortion stigma, including the negative attitudes of other healthcare staff. Overall, anesthesia providers as a population of providers that participate in abortion care are not well studied. Recent state legislation in Georgia affects abortion access and has serious implications on general obstetric care. Further study of the effects of restrictive abortion gestational age limits and the perspectives of anesthesia care providers is needed to effect change and improve abortion access.

**Objective:** Our study explored anesthesia providers’ attitudes towards providing anesthesia for abortion.

**Methods:** In-depth qualitative interviews were conducted with Georgia-area anesthesia providers who provide care for pregnant patients. Participants were recruited from four scientific meetings of regional anesthesiology organizations from February 2018 until February 2019. Demographic information including personal experience in abortion provision was collected. Recruitment continued until thematic saturation of the primary aim was reached. A codebook was created and refined in an iterative fashion, and thematic and comparative analyses were performed with MAXQDA qualitative software.

**Results:** 15 in-depth interviews with Georgia-area anesthesia providers were conducted, which included a wide representation of different provider types, location, and years of experience. In conceptualizing how anesthesia providers approach participation in abortion, our research revealed several major themes: professional versus personal views, transfer of responsibility, and workplace communication as facilitator. The multi-level factors that affect anesthesia providers’ participation in abortion provision that emerged from participant interviews aligned consistently with the social ecological model (SEM).

**Conclusions:** These findings enrich our understanding of Georgia-area, hospital-based anesthesia providers and generate potential targets to interventions or programs to enhance collegiality and improve abortion access in these settings.

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# Chapter 1: Introduction and Statement of the Problem and Purpose

## Introduction and Rationale

About one in four women in the United States (US) will have an abortion by age 45, making abortion one of the country’s most common medical procedures.1-3 Access to safe and legal abortion remains an important public health issue because maternal morbidity and mortality is increased in areas where abortion is illegal,4 and pregnancy is not without its own health and socioeconomic risks.5-9

However, abortion is stigmatized in the US, affecting both patients and providers. Negative patient outcomes are linked to abortion stigma.10-12 Particularly in the hospital setting, where a multidisciplinary team of nurses, surgical technicians, anesthesia providers, surgeons, and others work together to facilitate surgical care, provider attitudes and institutional policy may impact abortion provision.13-17 Previous studies have explored the experiences of obstetrician/gynecologists (OB/GYNs) and nurses towards abortion,15-23 however data detailing how anesthesia providers perceive and participate in abortion care is lacking.24

Anesthesia providers are an important group to study because adequate pain control during surgical abortion is a significant concern of patients seeking abortion25 and has been identified as a research priority by the Society of Family Planning.26 Pain management strategies during surgical and induction abortion include local, intravenous, regional, or general anesthetic techniques. Although anesthesia providers may not make surgical decisions in routine or complex abortion care, their support and participation are often necessary to facilitate surgical or induction abortion, particularly in the hospital setting. Based on literature studying other groups and anecdotal data, anesthesia providers may contribute to abortion stigma and other barriers to hospital-based abortion care.15,17-22 However, given their integral role in pain relief and recovery, anesthesia providers can be critical allies in the provision of compassionate abortion care.27 As such, by further studying the factors that impact anesthesia providers’ involvement in abortion, our research may inform future efforts to reduce abortion stigma in hospital settings, increase collegiality among departments, and subsequently improve abortion care.

The legal context of abortion access in the US is also important to consider when studying the abortion attitudes of healthcare workers, including anesthesia providers.19 In the decades since *Roe v Wade,* abortion provision has been increasingly regulated and limited by state legislation.28 Important to the context of understanding abortion provision in the state of Georgia, is understanding the impact of specific legislation that restricts abortion after 20 weeks post-fertilization (i.e. 22-weeks after last menstrual period (LMP)), except under certain conditions.29 Research examining the effects of gestational age restrictions is limited, however studies examining Georgia’s 22-week ban have projected negative public health outcomes.30,31 These and other studies highlight the importance of studying these and similar state restrictions.

## Problem Statement

Given the lack of research examining the perspectives and experiences of anesthesia providers in abortion care, further study is needed to characterize this group. By better understanding the thoughts and attitudes of anesthesia providers regarding participation in abortion care, further research and targeted interventions may be developed to improve inter-department collaboration, reduce abortion stigma, and thereby improve patient care.

Understanding that anesthesia providers are important team members in hospital-based abortion provision, they may also be impacted by the effects of state legislation such as the 22-week ban. In previous studies of the 22-week ban, anesthesia providers have not been included. Specifically, Georgia’s 22-week ban may introduce an additional barrier to anesthesia providers participation in abortion care. Since conducting our study in Georgia, the research team cannot eliminate the possible influence legal restrictions have on provider perspectives, therefore this research project seeks both to understand anesthesia providers’ general attitudes towards participation in abortion, as well as how those attitudes might be impacted by abortion legislation, especially Georgia’s 22-week ban.

Interest in this public health problem was spurred by the clinical experience of the primary author, who works as an OB/GYN and an abortion provider. Patients are referred for hospital-based family planning services for many reasons, including maternal health conditions, fetal anomalies, social conditions, and others. At these hospitals, in order to schedule a patient for surgical management of her abortion, the OB/GYN must correspond with Operating Room (OR) Nursing and Anesthesiology departments to arrange staffing. This informal policy has been enacted due to multiple nurses, technicians, and anesthesia providers, who decline to participate in abortion cases. Even with the policy, sometimes patient care is delayed due to unavailability of “willing” staff. Resultant surgical delays affect standard medical care and may put the patient at risk. Besides the academic need for further study, the author also sees a clinical application to her research at her workplace.

## Theoretical Framework

This project utilizes the Social Ecological Model (SEM) to explore the multiple factors that contribute to anesthesia providers’ perspectives on abortion provision. SEM is a theoretical framework that was initially developed by Urie Brofenbrenner in the 1970s and first used in the fields of sociology and psychology to explain childhood development and behavior.32 The modern theoretical model was adapted by McLeroy et al. to be applied to the field of public health, positing that health behaviors are influenced by nested ecological levels of increasing breadth and scope.33 Most ecological models describe levels of individual (e.g. attitudes, skills, self-efficacy), interpersonal (e.g. family, friends), organizational (e.g. school, work), community (e.g. region, culture, physical environment), and policy (e.g. local, state, or federal laws). SEM has been used extensively in public health research, especially in exploratory studies seeking to determine influences, facilitators, barriers, and other factors impacting health behaviors.34-36 In recent decades, the field of public health has been directed to create more theory-informed interventions for sustainable and effective change in health outcomes and behaviors.34,37 SEM, as a comprehensive, multi-level framework is of special interest towards the advancement of such health promotion interventions.38,39

SEM is applicable to the study of abortion attitudes based on prior research that has utilized SEM to explore reproductive health attitudes and stigma. For example, SEM has been adapted and applied to health stigma associated with HIV/AIDS, homosexuality (and other sexual minorities), and sickle cell disease, among others.40-43 Further, multiple descriptive studies have characterized patients’ experiences with abortion stigma, describing personal, relationship, healthcare organization, and societal influences.44-47 Kumar et al. adapted previous findings into a basic ecological model of abortion stigma, reporting that abortion stigma is perceived, felt, and enacted on people seeking abortion at individual, interpersonal, institutional, and sociocultural levels.46 Although the current study does not directly measure abortion stigma or another direct health outcome, we use SEM to guide our exploration of the presumed multi-level factors that influence anesthesia providers’ attitudes towards and participation in abortion care. Specific domains of interest in our study include personal attitudes and beliefs, personal relationships with family, friends, and coworkers, professional relationships and reputation, department leadership, and institutional, community, cultural, and political/legal considerations.

## Research Question and Purpose Statement

The main objective of this study is to evaluate the factors that influence participation of anesthesia providers in complex obstetric and abortion care. As mentioned previously, this group is an important stakeholder in obstetric and abortion care due to the common practice of providing general and regional anesthesia for surgical and induction abortion cases. While not the primary focus of the thesis, the secondary objective of the author’s broader fellowship project is to investigate the impact of Georgia’s 22-week ban on obstetric and abortion practice from the perspective of the anesthesia provider. We hypothesize that anesthesia providers will have varied opinions on and levels of support for participating in abortion care and report negative impact of the 22-week ban on future practice. These feelings may be impacted by personal or professional influences, exposure during training, as well as the legal atmosphere of working in Georgia and the Southeastern US. We hypothesize that the politically conservative cultural climate of Georgia will strongly influence the attitudes of anesthesia providers’ participation in abortion provision.

Specifically, the study aims to:

1. Explore the attitudes of anesthesia providers around complex obstetrical and abortion care, especially in terms of personal participation in these cases, and
2. Assess attitudes of anesthesia providers’ participation in abortion at periviability as impacted by state gestational age limits.

Research aims are accomplished via in-depth semi-structured qualitative interviews. The qualitative methodology of this study is appropriate since in-depth interviews allow for the detailed examination of personal experiences and exploration of the contextual influence around the research topic.48

## Significance Statement

This study is the first known qualitative investigation of anesthesia providers and abortion. It provides description and analysis of the multi-leveled context of abortion provision from the anesthesia provider’s perspective. This project is also unique in that is assesses the impact of restrictive gestational age abortion legislation in the state of Georgia.

The results from this project may be used to guide future research in this group of anesthesia providers in abortion care or in the development of targeted interventions to improve hospital-based anesthesia care. These findings and future efforts may improve abortion access and patient care by reducing abortion stigma and improving multidisciplinary patient care.

## Definition of Terms

1. anesthesia provider: any provider with specialized training and certification in the provision of anesthesia care, including anesthesiologists, anesthesiology residents, certified registered nurse anesthetists (CRNA), certified anesthesiology assistants (CAA), or students in training programs for the previously-mentioned anesthesia provider types
2. beneficence: principle of medical ethics that calls for the health care provider to act in the patient’s best interest; “a group of norms pertaining to relieving, lessening, or preventing harm and providing benefits and balancing benefits against risks and costs.”49
3. estimated gestational age (EGA): the estimated duration of pregnancy in weeks, typically defined from the first day of the last menstrual period (LMP) and/or ultrasound measurement
4. induced abortion: when medication is taken or a procedure is done to end a pregnancy with a heartbeat; used interchangeably with termination of pregnancy; distinct from spontaneous abortion or miscarriage; however, this paper uses abortion to refer to induced abortion only and not miscarriage
5. justice: principle of medical ethics that calls for equity in provision of medical care; “a group of norms for fairly distributing benefits, risks, and costs” in medicine49
6. non-maleficence: principle of medical ethics that calls for the health care provider to “do not harm” to patients; “a norm of avoiding the causation of harm”49
7. patient autonomy: principle of medical ethics that honors the capacity and responsibility of patients to make their own medical decisions; “a norm of respecting and supporting autonomous decisions”49
8. stigma: “attribute that is deeply discrediting that negatively changes the identity of an individual to a tainted, discounted one,”46 or a “social, cultural, or psychological attitude that overlaps negative stereotyping”50
9. thematic saturation: the point during qualitative data collection at which no new thematic ideas emerge, and data collection becomes redundant51,52
10. viability: the point in gestation at which, if born, the neonate is capable of sustained life in >50% of cases (specified as 24 weeks EGA in most states)

# Chapter 2: Literature Review

## Abortion in the US and Globally

Nearly half of all pregnancies in the United States (US) are unintended, and about 40% of those unintended pregnancies end in abortion.1 Although unintended pregnancy rates in the US are down trending based on most recent data,1 abortion rates have remained stable, with about one in four US women having an abortion by age 45.2,3 However, significant health inequities persist among minority and socioeconomically-disadvantaged people regarding unintended pregnancy and abortion rates.2,3 Further, pregnancy itself may pose significant physical, mental, social, and societal health outcomes. Besides well-studied risks of physical morbidity and mortality related to pregnancy,5,6 continuing an unintended pregnancy to delivery is associated with low birth weight infants, negative effects on social relationships, and increased societal costs.7-9 These findings suggest that regardless of pregnancy intention, abortion remains a needed medical service among Americans and their families.

Over 630,000 abortions were performed in the US in 2015, according to surveillance data from the Center for Disease Control and Prevention (CDC).3 About two-thirds of abortions occurred at 8 weeks estimated gestational age (EGA) or less, and over 90% occurred in the first trimester (less than 13 weeks EGA).3 First trimester abortion is performed via medication or uterine aspiration. The remaining 9% of US abortions in 2015 occurred at greater than 14 weeks EGA.3 These procedures are most commonly performed via dilation and evacuation (D&E) or induction termination. Most early medication abortion, uterine aspirations, and D&E procedures are performed at outpatient Family Planning or other clinics, and only 4% of all abortions occurred in hospital-based practices in 2014.53

Overall, medication and surgical abortion are safe procedures with low complication rates.3,54 Gestational age at the time of abortion is the strongest independent risk factor for abortion complications, including uterine injury, infection, and hospitalization, such that increasing gestational age portends greater risk.55 Overall complications rates remain low, even in second trimester and later abortions, and safe, legal abortion remains safer than childbirth.56

According to the World Health Organization (WHO), unsafe abortion occurs in settings that “do not conform to minimal medical standards [and/or] when performed by providers without adequate training.”57 Globally, 5 million women are hospitalized, and 47,000 die due to complications of unsafe abortion each year.58,59 Unsafe abortion is concentrated in countries with stricter legal restrictions on abortion.12 As a result of these restrictions, people seek abortion from unskilled providers, including themselves (i.e. self-induced abortion).10,11,60 Further, abortion stigma is pervasive, even in countries where abortion is legal, which also increases maternal risk.60,61

## Abortion Stigma

Erving Goffman described stigma as a process that tarnishes the social identity of an individual or group of individuals.62 Perceived stigma refers to how an individual may think others might think about them. Perceived reactions of others may dissuade or delay the individual from performing the stigmatized task. Experienced stigma refers to when negative behaviors are enacted on the practitioner of the stigmatized event. Finally, internalized stigma refers to the incorporation of perceived and experienced stigma into the stigmatized individual’s own self-image (e.g. shame, guilt).50

Stigma has been studied extensively in the context of many reproductive and other health conditions, including HIV in pregnancy, sickle cell disease, homosexuality, homelessness, and other chronic medical conditions.40-43,46 Abortion stigma has received increasing attention in the medical and public health fields as well. Kumar at al. defined abortion stigma as a “negative attribute ascribed to women who seek to terminate a pregnancy that marks them, internally or externally, as inferior to ideals of womanhood.”46

Several studies have explored the multiple ecological levels at which a person seeking abortion may perceive, feel, or encounter stigma. Although abortion has not been definitively linked to the development of long-term mental health issues, abortion stigma may be associated with a range of negative psychological outcomes, including depression, anxiety, social withdrawal, and avoidance.12 The following paragraphs organize previously studied features of abortion stigma in the framework of the social ecological model (SEM).

Abortion stigma is perceived, felt, and enacted at the individual level via feelings of shame, guilt, or selfishness. These feelings are often related to a woman’s personal beliefs and upbringing or by perceived social judgment for seeking or having an abortion.61 An important aspect of abortion stigma is the secrecy a woman may keep about her experience with abortion. Secrecy may be used as a defense mechanism against other forms of stigma in higher ecological levels, however secrecy can also be self-stigmatizing.61 By staying silent, some people may fail to cope with their thoughts and feelings about their abortion and instead internalize the stigma. Some patients seeking abortion may even express anti-abortion attitudes or judgments of others seeking abortion.44 Similarly, people’s secrecy around their own experiences with abortion means that others who experience abortion do not see the possible support network of others with similar experiences, therefore further amplifying the perceived stigma and isolation.46 Clinically, personal abortion attitudes, including feelings of shame and fear of abortion, is predictive of delays in seeking abortion, which results in patients seeking abortion at later gestational ages and putting themselves at higher risk of complications.63

At the interpersonal level, a woman may encounter stigma from family members, romantic partners, friends, peers, and co-workers. Many studies have highlighted the importance of this level of influence as the source of abortion stigma.7,64-66 In addition, people may encounter stigma from healthcare providers. This can occur openly when a patient reveals their consideration of pregnancy termination to their healthcare provider, who may refuse to provide services or referrals. Stigma may even be enacted openly or incidentally by the care staff who are involved in abortion care (e.g. receptionists, medical assistants, nurses, physicians).61,64

At the institutional level, written hospital policies that prohibit abortion and unwritten policies that create barriers to hospital-based abortion provision also perpetuate abortion stigma. Additionally, the emergence of Crisis Pregnancy Centers (CPCs), non-medical organizations that brand themselves as pregnancy information facilities and often provide free ultrasounds and false information to people contemplating abortion, are another form of enacted stigma at the institutional level.65

The community level of SEM may refer to cultural beliefs and practices, mass media, and physical or built environments. Sources of abortion stigma at the community level include organized religion, gender norms, ethnicity-based cultural values, and portrayal or absence of portrayal of abortion in mass media.46,61 Anti-abortion protestors stationed outside many abortion clinics in the Southeast represent a form of enacted environmental stigma.61,64 Cultural views on abortion may closely reflect an individual’s own views on abortion. Negative attitudes towards abortion may be associated with conservative beliefs about when life begins, the appropriateness or inappropriateness of women’s sexual behavior, as well as women’s prescribed roles in society.46

The policy level holds more visible forms of enacted stigma. In the US, legal regulations on abortion can include medically-unnecessary requirements and mandates to provide inaccurate information, such as mandatory ultrasounds or telling a patient about the unsubstantiated link of abortion to breast cancer or infertility.19,67 These and similar laws are call Targeted Regulation of Abortion Providers (TRAP) laws and also include mandatory waiting periods, gestational age limits, parental/spousal consent, hospital admitting privileges, and many others.28 Besides overtly limiting abortion access, these laws enact abortion stigma by inferring a sense of criminality on patients and abortion providers. When considering that “law is often employed for the purpose of deterring behavior considered socially undesirable, [TRAP laws invoke] the stigma of criminality.”50 In addition, the majority of states prohibit Medicaid to cover abortion costs, and eleven states prohibit private insurance plans from covering abortion, adding an additional layer of burden and stigma to patients seeking this common medical practice.68

## Abortion Attitudes of Healthcare Workers

Any individual who is associated with the care of an individual seeking abortion is vulnerable to stigma, including physicians, nurses, technicians, and anesthesia providers.69 Not only are health care workers a possible source of stigma, but they may be subject to abortion stigma themselves.18,21,61,70,71

Occupational stigma has been described as occurring in the setting of “dirty work:” work with a physical, social, or moral taint, which “society deems necessary but unsavory or somehow blemishing to the worker.”69 According to that definition, abortion provision may be described as “dirty work,” and its practitioners subject to occupational stigma. In articles addressing the physical taint of abortion, abortion providers acknowledge the sometimes visceral response of handling products of conception and fetal remains.72,73 Although patients may seek abortion for any reason, abortions performed for maternal health or severe fetal anomalies may carry less moral or social taint, however the physical taint may stay the same.69 Fear or threat of violence may also influence abortion providers’ attitudes towards abortion, furthering the silence and segregation of abortion work.19

Previous research of obstetrician-gynecologists (OB/GYNs) has explored some of the interpersonal and institutional barriers to abortion provision. One qualitative study of young OB/GYN practitioners who had graduated residency with abortion training explored the process by which participants were or were not able to incorporate abortion care into their private practices. Over half of the physicians who desired to provide abortion were unable to do so because of formal or informal policies of their practice or hospital, perceived or actual strain placed on professional relationships with coworkers and supervisors, or the fear or threat of violence.16 In a survey of Canadian hospital OB/GYN departments, hospital policies, personnel issues and fear of or actual harassment were named as barriers.15 In another study, physicians and nurse managers had different impressions about the impact nurse staffing had on hospital-based abortion provision: more doctors than nurse managers agreed that abortion cases had been delayed or negatively affected by unwilling nurses.17 In some of these physicians’ experiences, delays in scheduling hospital-based abortion procedures resulted in patients getting their abortions at later gestational ages, further compounding the nurse staffing issue since fewer nurses were comfortable assisting in cases past certain gestational ages.17 These studies highlight the importance of a multidisciplinary team of care providers to hospital-based abortion provision because limitations in staffing affected patient care.

Several recent studies have explored the abortion attitudes of nurses and other health care staff who participate in abortion care. A qualitative study of nurses working in abortion clinics in the United Kingdom (UK) revealed that nurses are subject to stigma themselves, especially in interactions with friends and patients and perceived cultural expectations, however, team support in the workplace mitigated these effects.18 Participants in this study also expressed a spectrum of acceptability of abortion at the limit of viability, suggesting that even among a group with pro-choice, pro-abortion ideologies, some discomfort around the physical aspect of abortion provision exists.18 A survey of Labor and Delivery (L&D) nurses in California demonstrated that nurses’ acceptability of abortion was based on indication and fetal gestational age, with more nurses stating they were more likely to participate in induction abortions for maternal life-threatening conditions, severe fetal anomalies, and earlier gestational ages. Interestingly in this study, both nurses who would and would not participate in hospital-based abortion care reported feeling harassment at work for their preferences.20 A qualitative study of Emergency Department (ED), L&D, and surgical nurses conducted in California described the mental calculus many nurses perform when deciding whether, when, and how to take care of a patient having an abortion. These decisions were impacted by what participants deemed to be their personal and professional perspectives, the perceived opinions of others, knowing how to versus knowing why they should participate in patient care, and defining the extent of the nurse-patient relationship.23 A separate thematic analysis from the same group of nurses was performed to identify key facilitators to compassionate nursing care in abortion. These included exposure to abortion care as a student, opportunities to engage in leadership activities, and believing that nursing is shared work.22

Despite the wealth of information exploring and characterizing nurses’ experiences and attitudes towards abortion, anesthesia providers are not as well studied. A recent survey of US anesthesiology residents described residents’ personal acceptability of various indications and features of abortion. Among 215 respondents, abortion for maternal health and fetal anomaly indications were generally acceptable and first-trimester abortion was more acceptable than second-trimester abortion.24 Importantly, over three-fourths of the sample surveyed reported ever-participation in abortion procedures, including the majority of the residents who had reported objection to abortion for certain indications.24 This national survey is the first known study to characterize the perspectives of anesthesia providers in the US and implies that exposure to hospital-based abortion is prevalent among anesthesiology residency training.

Otherwise, anesthesia providers are an understudied population in abortion research, especially regarding facilitators and barriers to anesthesia participation in abortion care. In the Anesthesiology literature, one publication that described the labor induction of two patients with severe fetal anomalies in the third trimester (one with a fetal demise on admission and another with neonatal death at five hours of life) and argued that anesthesia providers have a role and responsibility to provide compassionate anesthetic care in similar, emotionally-difficult obstetrical cases like induced abortion.27

In France, where abortion is legally allowed past fetal viability for maternal and fetal indications, 78% of all inductions for these indications are in the second and third trimesters.74 By French law, multidisciplinary perinatal committees review scheduled induction abortion cases. One French study, which aimed to describe the extent of Anesthesiology involvement in these multi-disciplinary perinatal committees, showed 38% participation for fetal indications and 69% for maternal health indications.74 However no further or subsequent analysis has been undertaken to determine if such conferences facilitate anesthesia provider participation in abortion care.

## Implications of US legislation on Abortion and Obstetric Care

One important factor that may influence anesthesia providers’ participation in abortion care is the legal context of abortion practice where they work. Since the passing of *Roe v Wade* and the legalization of abortion in the US more than 45 years ago, hundreds of state laws have passed that regulate and restrict abortion practice.28,75 Most of these laws have little to do with evidence-based medical practice and more to do with restricting abortion under the guise of patient care.67 For example, 38 states require abortion to be performed by a licensed physician, 16 states mandate counseling on state-written materials describing embryonal/fetal growth, fetal pain, or the unsubstantiated link of abortion to breast cancer, 27 states require waiting periods ranging from 24 to 72 hours from consent to abortion, and 43 states have some form of gestational age limit on abortion provision.28

In 2012, the Georgia state legislature passed a law limiting abortion after 20 weeks post-fertilization (i.e. 22 weeks after last menstrual period (LMP)). The 22-week ban does make exception for pregnancies that are “medically futile” or would cause serious harm or death to the patient. However, the law stipulates that if an abortion is performed under these exceptions, it should be performed in a way that maximizes neonatal survival.29 Before the law was enacted, several citizens who are obstetrician-gynecologists, along with the American Civil Liberties Union (ACLU), filed civil action, citing violation of due process under the Georgia constitution.76 The ACLU sought to argue against the constitutionality of the law by citing a woman’s right to privacy of abortion until viability (i.e. 24 weeks from LMP). They also argued the adverse impact this law would have on general obstetric care (considering the stipulations of “maximizing neonatal survival” and vague definition of “medical futility”). In addition, the law establishes criminal punishment of physicians in violation of this law – up to ten years in prison – thereby hindering the physicians’ practice of the standard of care.29 Many OB/GYNs in the state of Georgia, represented by the Georgia Obstetrics and Gynecology Society, also came out against the law due to its perceived impact on obstetric standard of care. As a result of legal action, the 22-week ban was under injunction from 2013-2017, however the Georgia Supreme Court rejected the appeal in 2017, resulting in full enactment and enforcement of the law in June 2017.77

Research examining the effects of these types of laws is limited, however an unpublished study performed during temporary injunction of Georgia's 22-week ban surveyed Georgia obstetricians about the ban and found low awareness of the law, as well as no consensus regarding what cases might constitute “medical futility." Furthermore, respondents anticipated overall negative effects of the law on hospital-based obstetrical practice.30 These findings underline the potential harm of this law and highlight the importance of studying these and similar state restrictions.

Besides the implications of restricting obstetrical care for severe maternal medical or fetal conditions, the law is also projected to have a negative impact on all patients seeking abortion. Prior to the 22-week ban, Georgia and Florida were the only states in the Southeast that performed abortions over 22 weeks EGA. As such, Georgia was a large referral site from other states in the Southeast and Midwest for abortions past 22 weeks EGA, performing 9% of the nation's abortions beyond this gestational age (compared to 5% national average).78 With the new law, it is estimated that patients at and beyond this gestational age from the Southeast, Midwest, and Northeast will have to travel farther, devote more time, and spend more money seeking an abortion, which would result in further delays of medical care or result in more patients continuing an undesired pregnancy to term.31

# Chapter 3. Methodology

## Introduction

To explore both the abortion attitudes of anesthesia providers and their perceptions of the impact of Georgia’s 20-week ban on obstetrical care, we conducted in-depth qualitative interviews with Georgia-area anesthesia providers. Study protocol was approved by Emory IRB in February 2018. Participants were recruited from the scientific meetings of two regional anesthesiology organizations from February 2018 until February 2019. Any anesthesia provider with recent clinical experience in obstetric care was invited to participate in the study. All participants gave verbal consent to participate. Interviews were conducted in-person or over the phone and lasted 40-80 minutes. All participants received a $100 Visa gift card as thanks for their participation. After the interviews, snowball sampling of primary participants facilitated additional recruitment. Recruitment continued until thematic saturation was reached. A codebook was created and refined in an iterative fashion. Thematic and comparative analyses were performed with MAXQDA qualitative software.

## Population and Sample

The target population of this study included current clinical anesthesia providers. These are health care providers with specialized training and certification in the provision of anesthesia services. For example, anesthesia providers may include anesthesiologists, certified registered nurse anesthetists (CRNAs), certified anesthesiology assistants (CAAs), or clinical trainees for the previously-mentioned anesthesia provider types (e.g. residents, student registered nurse anesthetists (SRNAs) and student anesthesiology assistants (SAAs)).

There are two regional organizations that represent anesthesia providers in Georgia. The Georgia Society of Anesthesiologists (GSA) includes Georgia-area anesthesiologists, residents, CAAs and SAAs, and the Georgia Association of Nurse Anesthetists (GANA) represents CRNAs and SRNAs in the state. Both organizations host annual or semi-annual scientific meetings, from which we recruited primary participants for our study. This recruitment setting was chosen because the research team wanted to recruit from a large sample of anesthesia providers from across the state of Georgia. Subsequent snowball sampling of primary participants allowed expansion to anesthesia providers not in attendance of the organization meetings. GSA conferences were held February 2-3, 2018 in Atlanta, GA, July 13-15, 2018 in Greensboro, GA, and February 15-16, 2019 in Atlanta, GA.79 The GANA annual meeting was held October 5-7, 2018 in Savannah, GA.80 Each conference was attended by 50-100 anesthesia providers.

Inclusion criteria were 1) an actively-practicing anesthesia provider or clinical trainee in anesthesiology (see definition above), 2) who reported working with pregnant patients (defined as at least one patient in the last twelve months). Exclusion criterion was non-fluency in English. Inclusion criteria were intentionally designed to be broad and capture a range of experience with obstetrics. Current participation in abortion care was not a part of inclusion criteria, although this information was collected in addition to other demographics.

Consistent with the established rigor of qualitative methodologies, an *a priori* sample size was not calculated.48,81 Instead cessation of recruitment was determined by thematic saturation: the point at which no new thematic ideas emerge, and data collection becomes redundant.51,52

## Research Design and Measures

In-depth interviews via a theory-informed semi-structured interview guide were used to accomplish study aims. Qualitative methods were selected because they allow for the detailed examination of personal experiences and seek to understand the contextual influence around the research topic.48 This study design was justified given that our study was the first known in-depth investigation on abortion in this population, and our objectives were exploratory in nature.

The semi-structured interview guide was developed to examine several domains, including 1) demographics, 2) obstetric (OB) experiences and challenges, 3) cases in pregnancy termination, 4) the 20-week ban, 5) personal abortion attitudes, and 6) concluding thoughts (see Appendix 1). Given the taboo nature of abortion in the Southeastern US, the order and type of questions were written to first build rapport between interviewer and participant, then gradually introduce the topic of abortion. All questions were designed to be open-ended and allow free responses without biasing the participants to express one opinion over another. The study instrument was developed by the primary author based on prior research in the department30 and piloted among Emory OB/GYN and Anesthesiology faculty in Fall-Winter 2017.

Important demographic information collected during the interviews included gender, race, ethnicity, anesthesia provider type, number of years of anesthesia experience, type and setting of anesthesia practice, leadership experience, current clinical practice, frequency of OB practice, and past or current abortion experience.

Case-based questions included short vignettes about patients scheduled for hospital-based abortion at 21 weeks estimated gestational age (EGA) of pregnancy. Each case was followed by open-ended questions and probes, which were meant to elicit anesthesia providers’ responses to administering anesthesia in each scenario. Participants were instructed that cases were not designed to test medical knowledge, but to explore their personal reactions and opinions. The first case detailed a patient with Hemolysis Elevated Liver enzymes and Low Platelets (HELLP) syndrome, a severe form of pre-eclampsia, which is a hypertensive condition of pregnancy that can result in liver failure, kidney failure, bleeding disorders, seizure, or stroke if untreated. Subsequent cases included a pregnancy affected by a severe, fetal cardiac defect that is incompatible with life, and another with previable, preterm, premature rupture of membranes (PPROM), a condition where the “water breaks” before fetal viability. Socially indicated cases were not included, but these and other indications for abortion were explored in other domains.

The 22-week ban domain first asked about pre-existing knowledge of the law before reading a short summary of the law. Participants were also offered a supplemental long-form summary of the law with language directly taken from the original Georgia House bill (see Appendix 2).29 Subsequent questions and probes explored the participant’s understanding of, reaction to, and impact on patient care of the law.

Several sections of the interview guide were designed to target multiple levels of the Social Ecological Model (SEM). These included questions and probes about personal attitudes and beliefs about abortion, influence of professional relationships and reputation, impact of department and hospital leadership, and legal considerations.

## Procedures

The research team registered as exhibitors at each of the GSA and GANA conferences, which allowed the research team to have a reserved table in the conference hall and direct access to conference attendees throughout the meetings.

Primary participants were actively recruited from the exhibitor booth, and flyers were also distributed during the conference. Visitors to our study booth were informed of the study, and interested individuals underwent screening for eligibility via review of inclusion and exclusion criteria mentioned above. Eligible participants were verbally consented at the time of their interview per Emory IRB. Each participant was offered a copy of the study information and consent form. (see Appendix 3). Two research team members (JR and PG) were present at the study booth for the duration of the conferences to consent and enroll participants.

All interviews were conducted by the principal investigator (JR). Interviews were primarily conducted on-site at the conference in a face-to-face format in a private room. Several participants elected to conduct the study interview by phone due to scheduling and personal preference. Interview length ranged from 40-80 minutes. All interviews were audio-recorded with a digital voice recorder, and the interviewer took detailed, hand-written notes. Each participant received a $100 Visa gift card as thanks in acknowledgement of their time.

At the time of their interviews, participants were asked for names and contact information of co-workers at their primary work affiliation, who they thought might be interested in participation in the study. If these names were not provided at the time of the interview, primary participants were contacted later by phone or email to request this information. Contacts provided for snowball sampling were contacted by phone or email. If the participant or potential participant did not respond after three attempts, further contact was discontinued.

Snowball participants were informed of the study and screened for eligibility criteria in a similar manner as above. Face-to-face or phone interviews were scheduled. Verbal consent and the interview were conducted via the same procedures as above.

All study materials, including participant contact information, consent forms, and interview notes were stored in a locked portable file storage box. Deidentified data were stored separately from any personally identifiable information. All audio files were professionally transcribed verbatim, and both audio files and transcripts were stored electronically in a private, password-protected, secure server. The principal investigator (JR) personally verified all transcripts against their original audio for accuracy, and deidentified all transcripts. All study participants were assigned pseudonyms to further protect participant confidentiality. Verified and de-identified transcripts were uploaded into MAXQDA 2018 for analysis. Microsoft Excel was used to track participant demographics and other variables.

## Analysis

Data were analyzed with via modified grounded theory techniques. Thematic and comparative analysis techniques were also used. Traditional grounded theory implies a "blank slate" approach to code generation and analysis of emerging themes without any external influences.82,83. These themes may be elevated to constructs and concepts while developing a new theory to explain and predict behavior.82,83 However, applying a social constructivist lens to grounded theory allows and acknowledges that the research may have an initial theory or framework that guides the data collection.83,84 Analysis continues via the same iterative process of coding and theme generation.83,84 Because we have developed our interview guide under the framework of the SEM, a traditional grounded theory approach is not possible. As a result, we used a modified approach as described.

A codebook of both deductive and inductive codes was developed and refined through an iterative process.81 First, two representative interviews were selected by the principal investigator (JR) to develop the initial codebook. Two research team members (JR and PG) independently coded these and the remaining transcripts, meeting regularly throughout the process to resolve differences and add, remove, or refine codes and subcodes as necessary based on emergent themes. Other research team members (KH and CC) also reviewed and gave feedback on the final codebook. All codes and subcodes were explicitly defined with application criteria and examples, which facilitated uniform use of codes (see Appendix 4). All transcripts were independently co-coded with the final version of the codebook, and the two coders (JR and PG) met regularly to verify consistent code use and segment length for every interview. Inter-coder disagreements were resolved between the two coders for every transcript. Additionally, both reflexive and thematic memoing were performed throughout the analysis process.

Deductive coding refers to a process by which data are reviewed for pre-described concepts or themes, often according to direct questions in the interview guide.81 For our study, SEM was adapted into a coding framework to label data that related to interpersonal, workplace-leadership, institutional, community/cultural, and political/legal ecological levels. A deductive coding framework was also used to analyze sections of interviews discussing Georgia’s 22-week ban. These codes included pre-existing knowledge, initial reaction, salient features, assessment of law, and law affecting practice. Inductive codes, which are ideas that emerge *de novo* from the data81 were also developed and applied to the entire length of each transcript.

Thematic analysis refers to a systematic approach of identifying, organizing, and exploring patterns of meaning across a data set in order to answer a specific research question.85 As emergent themes were identified and described, comparative analysis was also performed within and between groups according to demographic variables collected (e.g. gender, anesthesia provider type, frequency of OB experience, and abortion experience).86 In this way, the research team was able to thoroughly analyze our data for potential moderating variables and other patterns to explain and support our findings.

# Chapter 4. Results

## Introduction

Results presented here include major themes and findings from the study’s primary aim. Results from the study’s secondary aim on the 22-week ban will be presented in a separate analysis. In conceptualizing how anesthesia providers view their roles in abortion provision, several major themes emerged from the data: professional versus personal, transfer of responsibility, and communication as facilitator. The multi-level factors that affect anesthesia providers’ participation in abortion provision that emerged from participant interviews aligned consistently with the social ecological model (SEM) framework, and as such SEM is applied here to organize and synthesize findings. Individual experiences, interpersonal relationships, workplace, institutional and organizational factors, community and cultural beliefs, as well as policy and legal issues all impacted anesthesia providers’ perceptions of their roles in abortion provision (see Figure 1). These findings enrich our understanding of Georgia-area, hospital-based anesthesia providers and generate potential targets for future interventions or programs to improve abortion access in these and other settings.

## Sample Characteristics

The study team interacted with over fifty anesthesia providers over the course of four GSA and GANA conferences. More than three-quarters of these potential participants declined due to not practicing obstetrics in the last year. Providers who declined to participate were generally older, white, and either retired or specialty-focused (e.g. cardiology anesthesia). Eighteen anesthesia providers expressed interest in the study and initially met screening eligibility. Fourteen primary participants consented and completed interviews, twelve of whom were interviewed in-person at the time of the conference and two of whom were interviewed after the conference via telephone. One of the interested individuals did not meet the OB eligibility criterion, and three were lost to phone and email follow-up. Recruitment for snowball sampling occurred after each conference, concurrent with ongoing primary recruitment. Only three primary participants provided contacts for snowball sampling. Of the nine anesthesia providers contacted via snowball sampling, two expressed interest, and one of these consented and completed the interview. The remainder were lost to follow-up. In total, fifteen in-depth interviews were completed prior to thematic saturation.

Participant characteristics are detailed in Table 1. Importantly, our sample represented a range of provider types, years of experience, location of workplace setting, and frequency of OB practice. Most providers worked in a hospital setting, however one worked solely at an ambulatory surgical center (ASC), and two worked in multiple settings. More than half of our sample reported ever having provided anesthesia for abortion, however the frequency of abortion care was low. Some participants reported administering anesthesia for abortion once to a few times per year, and some others reported participation many years ago or only during training.

## Major Themes

### Professional versus Personal

Like many heterogenous groups of people, the anesthesia providers in our sample reported a variety of opinions and personal views related to abortion. Almost all the providers in our sample were acceptable of abortion in the cases of maternal life-endangerment, rape, or incest. More than half of the sample was accepting of abortion in cases of severe fetal anomalies, especially cases that were characterized as “incompatible with sustained life after birth.” Fewer providers were personally acceptable of abortion in the setting of non-lethal fetal anomalies, social or financial indications, or other “elective” reasons. No anesthesia providers in our sample thought abortion for sex selection or as a means of birth control was acceptable. Only one provider in our sample expressed total opposition to abortion in all situations (see Figure 2). Other features of abortion on which anesthesia providers in our sample expressed a range personal views included gestational age, such that abortion at earlier gestational ages were more acceptable than later gestational ages, and frequency of hospital-based abortion, such that anesthesia providers were more accepting of participating in abortion in the hospital so long as it occurred infrequently (e.g. less than once per month).

Our sample’s personal attitudes towards abortion were affected by their roles as medical providers. Many in our sample revealed that their professional positions were not aligned with their personal views. For most of these providers, their professional roles allowed them to care for patients scheduled for hospital-based abortions while their personal views may not have been supportive of abortion. In contrast to participants who would choose to participate in the anesthesia care for abortion patients despite personal views that opposed abortion, several providers in our sample reported professional roles and actions that aligned with their personal views and which did not allow them to provide anesthesia for abortion. Among participants who expressed differing professional and personal views, many explained these perceived differences in several ways, often citing professional responsibilities in terms of medical ethics, coworkers’ willingness or unwillingness to provide, and department expectations. Each of these ideas will be explored in the following sections.

Evie[[1]](#footnote-1) is an early-career CAA who works at a private hospital in a small city in Georgia. She reported that although she did not personally agree with all indications for abortion, she was willing to provide anesthesia for patients seeking abortion care in most cases. She explained the difference in her personal and professional views by saying,

I think you have a work hat, and I think you have a home hat, and, you know, when I’m at home, what I would do for myself, I might not agree with somebody else, but, you know, that’s with a lot of stuff I do.

Evie disclosed that she is a parent to two young children and brought up an example of different parenting styles as further explanation. Her identity as a parent and her relationships with her children may influence her thoughts and attitudes about providing abortion, representing the individual and interpersonal levels of the SEM.

Gary[[2]](#footnote-2) has been an anesthesiologist for over thirty years and currently works in a suburban, community hospital. He reported frequent exposure to anesthesia care for patients seeking abortion as an anesthesiology resident in a Northeastern state, but in his current position, he infrequently sees abortion patients. In his current practice, he manages many patients with chronic pain and drug addiction. Gary stated that he is personally uncomfortable with patients who have had multiple abortions or might be using abortion as a form of birth control. Despite this, he advised:

Don’t let your personal views interfere [with] your care for the patient. And, if you can’t do that, then you need to really consider what you’re gonna do. You're there to help the patient. You can express your personal views, but this is a big -- anybody that’s going thorough this, usually, it’s a big thing for them. And you’re there to reduce their stress, not increase it.

Gary’s response may be influenced by the length of his career and the breadth of his professional experience, both as a resident in the Northeast and as a pain specialist in the Southeast. Additionally, his personal experiences with abortion may impact his understanding of the anesthesia provider’s role in abortion provision. During the interview, Gary confided that several people close to him have had abortions, including his wife and another close friend. His experiences reflect influences from the interpersonal, institutional, and community/cultural ecological levels of the SEM.

1. **Principles of Medical Ethics**

Participants spoke frequently of their roles and responsibilities as anesthesia providers, both inside and outside the context of abortion provision. Often, these discussions were explained in terms of risk, safety, and ethical principles of medicine. In Anesthesiology, these providers reported anticipating and responding to medical risks, prioritizing patient safety, and providing comfort and relief from pain. Further, our participants described that anesthesia care is more than just providing the anesthetic, especially in the setting of OB/GYN. These participants described the importance of being emotionally supportive, managing labor or surgical expectations, and considering long-term quality of life. Ethical principles of beneficence, non-maleficence, justice, and patient autonomy were underlying to these discussions of roles and responsibilities, which explained how some anesthesia providers can hold separate professional views from their personal beliefs.

Chad[[3]](#footnote-3) is an early-career CAA, who works in a large, urban, teaching hospital. He reported a religious upbringing and personal objection to abortion in cases outside of medical necessity and severe fetal anomalies. Despite this, he was very vocal about his professional support for providing anesthesia in the setting of abortion. At his facility, abortions for high-risk maternal and fetal conditions occur with some regularity, but he is the assigned provider for these cases only a few times a year. Before he was a CAA, Chad worked as an allied health professional in the intensive care unit (ICU), which he said helped mediate his opposing personal and professional views:

…[I]f you get distracted with a moral aspect, sometimes you cannot do your job. At the end of the day, you're trying to keep patients safe and keep them healthy. So, if you get stuck on that, you kind of, you end up finding yourself stumbling through the anesthetic process. … you cannot put the patient's life in danger for your moral obligations no matter how right or wrong it may be … I’ve learned to disassociate my feelings ethically from my actual practice of medicine … I just have a feeling like healthcare and your personal convictions should not be 100 percent aligned all the time. I just feel like at the end of the day, we're here for the patient.

Chad’s opinions reflect beneficence and non-maleficence, two principles of medical ethics that speak to doing good for and preventing harm to patients. He recalled several instances where coworkers were hesitant or unwilling to provide anesthesia for induced abortion, and he was called to replace them. From Chad’s perspective, withholding or delaying care for patients scheduled for abortion due to personal objections, especially in cases of high maternal risk would not serve the patient’s best interest and could cause them harm. Further, his views are impacted by workplace relationships, institutional culture, and religious ideologies, all features of the SEM.

Patient autonomy, another pillar of medical ethics, honors the capacity and responsibility of patients to make their own medical decisions. References to patient autonomy were pervasive in our data. Many anesthesia providers expressed understanding that a person may choose abortion for any number of reasons, and just because the participant personally could not make that choice, did not mean that patients could not be trusted to make their own decisions. Victor,[[4]](#footnote-4) a late-career anesthesiologist, whose hospital infrequently performs abortions for medical or fetal indications, said, “I guess I'm not too stuck up on what I want for the woman. I mean as long as I think she is cognizant of the issues, and it seems within the bounds of norm, I think we're pretty good with it.” Ellen,\* an anesthesiology resident, who in her still-early career had not yet taken care of a patient for abortion, openly grappled with her discomfort with the idea of providing anesthesia for several of the hypothetical patient cases during the interview, but she too reasoned that she could fill the role of anesthesia provider despite her personal beliefs:

[U]ltimately, I do believe that it is the patient's choice. And I think that if this were just brought to me on a regular day at work, and I hadn't had time to pre-contemplate it or anything like that, I would probably still need to find an outlet for myself to be able to talk through the logistics of it, or the kind of implications of it, from a philosophical, ethical standpoint. But I think, as a provider, that is something that I have committed to doing for my patients, and so I would likely still provide that service for that patient.

Her thoughts reflect patient autonomy because by pursuing medicine as a career, she has committed to providing healthcare for patients who have made their own decisions on what is best for them.

Evie also cited principles of medical ethics in her explanations of her role as an anesthesia provider in the setting of abortion, with which she personally disagreed. From her perspective, a medical provider should be objective and treat everyone equally:

...As a provider, it is my job to provide the anesthesia. It’s not my job to decide on a moral compass whether I think they’re right or wrong. Would I treat her any differently to any other patient? No, I wouldn’t.

She and several others gave examples of caring for drunk drivers, murderers, smokers, and drug users to justify the equal provision of medical care despite personal disagreement with a patient’s actions. Their views represent justice, the fair provision of medical care.

1. **Influence of Coworkers**

In addition to medical ethics, some participants who reported differences between their personal and professional viewpoints cited the attitudes and actions of their coworkers as the reason they would provide anesthesia care in abortion despite holding disparate personal beliefs. For example, Chad explained that he was motivated to provide anesthesia for abortion because many of his coworkers were not. Chad reported that of the dozen CAAs who graduated with him and were hired to work at the same hospital, he was the only one who was comfortable providing anesthesia for patients scheduled for abortion. After voicing his personal hesitance to provide anesthesia for a hypothetical pregnant patient at 21-weeks EGA without medical or fetal indications, Chad said, “I would probably do it because I know most of my coworkers won't … my other coworkers are more adamant about it than I am.” Chad was fearful that if he did not provide the anesthesia, patients would seek “back-alley abortions,” or potentially go through psychological distress and trauma from being forced to continue a pregnancy they did not want, which also motivated him.

Participants’ perceptions that their professional values were different than their personal beliefs were also reflected in the reported values of their group practice or department. Adam,[[5]](#footnote-5) a mid-career CAA, who works in a small city in Georgia, said of his group: “And I'm pretty much sure our group is like … we don't insert our lives into somebody else's lives, ... [W]e're here for the mother and her safety first.” Although abortions were not performed at Adam’s Catholic-affiliated hospital, he was confident in the opinions of the other anesthesia providers in his group based on their experiences with Jehovah’s Witnesses and other high-risk OB patients. Victor, an anesthesiologist, saw abortion care as an obligation of his group practice, saying. “We have a few providers who prefer not to do [abortions]. But part of being in our practice is you have to do them, if you can't get somebody else to do them for you, then you need to do them.” These experiences emphasize the importance of the workplace-level of influence on our SEM framework.

1. **Personal Views that Prevent Abortion Participation**

In counter to many of our participants who stated that they could assist in abortion as the anesthesia provider because their professional roles were distinct from than their personal beliefs, a couple of the anesthesia providers in our sample expressed that their personal convictions could not and should not be put aside for work. These two participants varied in age, race, provider type, and number of years of experience, but they both identified as Christian.

Betty,\* a late-career CRNA in rural Georgia was very consistent about her views that any abortion was morally wrong. She stated she would not be involved in anesthesia care for any patient having abortion except in extreme cases of maternal life-endangerment. She explained, “Your beliefs are what your beliefs are, and if you go against them, there's going to be issues.” For Betty, if she worked at a facility that performed abortions regularly, she reported that she would request to change units, or “I'll go to work for a hospital that has feelings more like my own.” Personally, she had provided anesthesia for abortion once in her career: while in the Navy, she had a patient with a severe cardiac condition that necessitated abortion to save the woman’s life. Now, she works at an endoscopy center where she rarely encounters pregnant patients. Her viewpoints are influenced by multiple ecological levels of the SEM, including workplace, institutional, and community/cultural.

Summer,[[6]](#footnote-6) a young AA student who had just completed a 3-week rotation in Obstetrics, stated that she did not think she could participate in abortion cases outside of maternal life-endangerment because the experience would

…hurt me mentally … I just feel like if it was just an elective abortion, [doing that] regularly, consistently – you're kind of killing babies, like especially before the Bible, or before ‒ that's not something I want to be part of.

Summer struggled to really explain what she meant, but her jumbled statement may reflect the severe dissonance and distress the thought of providing anesthesia care for patients having abortions gave her. In justification for her stance that anesthesia providers should not act against their personal beliefs, she argued that doing so may affect the quality of care patients receive:

…[I]f you don’t feel comfortable, …you don’t want that to cloud your ability to do your job. … I still want [the patient] to get the best anesthesia care, and I might not be the best candidate for that.”

Chad explained that an anesthesia provider’s religious upbringing in the Southeast might predispose them to hold more tightly to anti-abortion beliefs in the workplace:

I feel like, well, in the South, people hold their religious convictions a lot stronger and apply it on a broader aspect, and … they cannot separate their work from their religious beliefs … And a lot of people will say, "Well, I'm, religiously, I'm against abortion, period," and they will carry that into the workplace, and I don't agree with that but … that's what they do.

During the interview, Chad spoke frequently of his close friend from Alabama, who he characterized as very religious and anti-abortion. His understanding of his friend’s perspective contributed to Chad’s own feelings of ethical responsibility towards providing anesthesia for hospital-based abortion patients as described above. His views provide deeper understanding of the impact of regional and religious influences on an anesthesia providers’ decision-making on participating in abortion care and represent the community/cultural level of the SEM.

In summary, a major finding of our study was the theme of personal versus professional, which revealed that anesthesia providers may hold disparate personal views on abortion compared to their perceived role as a healthcare provider. These discussions were frequently described in terms of medical ethics and the perceived attitudes of coworkers. Importantly, several counterexamples to this theme—when personal attitudes cannot be separated from the professional self—were also identified.

### Transfer of Responsibility

As anesthesia providers reflected on their actual and hypothetical participation in hospital-based abortion provision, several other salient themes emerged. As participants spoke about their ability to separate their personal feelings from their professional roles, many explained that they were able to do this because they were not ultimately responsible for that patient’s abortion. Participants spoke of responsibility both in terms of professional responsibility in medical decision-making, as well as moral responsibility. In the interviews, moral responsibility for abortion was implied throughout, possible reflective of the pervasiveness of abortion stigma, such that abortion was automatically assumed to be carry moral weight. As will be discussed below, some study participants felt that because the anesthesia provider’s role was primarily in providing surgical pain relief, the potential moral consequences of abortion did not apply to them. In this way, anesthesia providers were able to provide anesthesia care for abortion because other parties were responsible for abortion decision-making. Anesthesia providers in our sample identified the patient, the obstetrician, and the law as sources of responsibility for abortion decision-making outside themselves. However, some anesthesia providers in our sample felt that providing anesthesia for abortion was a proxy for personally providing abortion and did not transfer responsibility to another source. As this thesis later discusses, transfer of responsibility may be a coping mechanism for anesthesia providers to process the stigma associated with abortion and allow them to provide medical care for these patients.

1. **Transfer of Responsibility to the Patient or the Primary Provider**

Many study participants spoke of the importance of the patient-physician relationship in abortion decision-making and transferred responsibility to either the patient, the health care provider, or both when considering hospital-based abortion. “It’s the patient and her obstetrician,” “This is a parent’s decision,” “You have to go with what the mom wants,” and “Honestly, it's up to the patient” were some of the common refrains about decision making for abortion. Statements about trusting the patient overlap with values of patient autonomy as discussed above.

Overall, anesthesia providers in our study voiced respect for and valued the patient-physician relationship, especially trusting the relationship between the patient seeking abortion and the OB/GYN provider. Adam, the CAA who works at a Catholic institution said,

I'm a big believer that the relationship between a physician and the patient is paramount. … I would have no problem going along with the physician who made that decision about the life of that mother. It's not my role to give my opinion in a situation like that.

Multiple other providers echoed Adam’s statement that the anesthesia provider’s job is not to weigh in on the reasons why someone may have an abortion. Elmer[[7]](#footnote-7) is a late-career anesthesiologist, who had limited experience in providing anesthesia for abortion. He trained at a Catholic institution but now practices general and OB anesthesia at multiple, low-acuity, suburban care settings. He voiced personal acceptance of any reason a person may seek abortion, but professionally, he did not want to be anesthesia provider for abortion cases “too frequently” because it might “take a toll on [him].” In discussing who was responsible for providing abortion in the hospital setting, Elmer was clear that anesthesia providers were not involved in those decisions:

I'm not part of the decision tree. The only part of the decision tree is, once the decision is made, is [the kind of anesthesia] that you need based on your clinical condition. The anesthesia [provider] has no role in trying to determine whether or not you should be having an abortion or not. …[T]hat's not what we do.

Elmer’s experiences reflect multiple levels of the SEM framework, including institutional and community/cultural influences. His and others’ views imply that the clear distinction of roles and responsibilities in anesthesia care provision of obstetric patients, including abortion, may facilitate anesthesia provider participation in such cases.

Even participants who were personally opposed to abortion in certain situations rationalized their actual or theoretical participation in abortion by transferring that responsibility to another party. Cindy,\* a late-career CRNA in a suburban-based women’s hospital, summarized her role as an anesthesia provider by saying, “I think I would really defer to that this is a decision between her and her obstetrician, and we are there to facilitate her care through that decision.” Gary expanded on this idea by saying,

I basically go by what they want and what the OB discuss[ed]. I'm here to provide help and comfort. That's my job. Not to lecture them or decide what they're gonna have. I'm not in favor of abortions, but that's not my decision.

Although not explicitly stated, it is possible that these participants find relief from the potential moral consequence of abortion by adopting the neutral position of their medical role as the anesthesia provider. By recognizing that they as anesthesia providers are not responsible for taking a stance on the “right” or “wrong” of abortion, these participants are able to rationalize or reconcile any conflicting personal views they have on abortion. This has important implications for public health interventions with this group, as this thesis discusses in the next chapter.

1. **Transfer of Responsibility to the Law**

In addition to transferring responsibility to the patient or the OB/GYN, a smaller subset of participants deferred the decision to participate in abortion care to institutional or legal policies, both influential levels of the SEM. Transfer of responsibility to the law was both a facilitator and barrier to anesthesia provider participation in hospital-based abortion. Babs[[8]](#footnote-8) is a late-career CRNA and specialist in OB anesthesia at a large, academic institution. Both legal and hospital policy considerations were a priority for her to consider how, if, and when she would provide anesthesia for abortion. “I would want to know what the state’s regulation is on termination and how many weeks and what is legal in that state and the institution.” As a CRNA, she was not directly responsible for knowing that information. Instead she would “defer to superiors, administration” to make decisions on which patients could be seen at a hospital for abortion. Similarly, other participants wanted to know the “legal ramifications of providing [abortion]” and “Number one, am I gonna get sued…? I’m sorry, maybe that’s not the right thing to do as a doc, but, sorry, number one, I’m not going to jail for this.” Even though this comment by Richard,\* a mid-career anesthesiologist and former department head was said with laughter, he and other participants focused on the fear of criminality of providing abortion care. This was especially apparent during exploration of anesthesia providers’ interpretations of Georgia’s 22-week ban.

Although full analysis on the study’s secondary aim related to the 22-week ban is not presented here, after introducing Georgia’s specific legislation, multiple participants reported that legal policies were critical to their participation in abortion as anesthesia provider: namely, that they would only participate in cases within legal limits and would not provide anesthesia for abortion outside these legal limits. Among these participants, several explained how the law justified their participation or non-participation in abortion, which is consistent with the theme of transfer of responsibility.

In reference to Georgia’s 22-week ban specifically, and abortion laws in general, Cindy felt that legislation on abortion helped simplify a complex issue. She personally did not think she was equipped to make such complex decisions, so transfer of responsibility to the law helped facilitate her decision to participate in hospital-based abortion:

I think if you're addressing this in any way … you have to pick a line somewhere. You know, and if it's 18 weeks or it's 22 weeks, you know, it's certainly not for me to say that. And … I’m not sure that anybody's 100 per cent accurate with what's right, … whether you're considering the mother, or whether you're considering the fetus. You know, the ethical issues. Like I said, I'm glad I'm not the one deciding because I think it's—there are a lot of gray areas.

Cindy’s statement highlights the perceive moral ambiguity of abortion, that regardless of medical knowledge or belief in patient autonomy, the “right” or “wrong” of abortion remains unclear. Several other participants felt similarly that laws or policies regulating abortion made it an easier subject to manage, which resulted in their roles as anesthesia providers as “cut-and-dry.” Summer reasoned that “laws are in place for a reason, right?” in recognition of this idea. For this group of participants, legal limits on abortion helped simplify a complex issue and therefore the anesthesia provider’s role in abortion, whether for provision or non-provision of anesthesia for these patients.

Counter to the providers who deferred responsibility for abortion onto an external source were study participants who felt that providing anesthesia for a patient’s abortion was performing the abortion by proxy. Two of the three providers who stated they would provide anesthesia for abortion only in the setting for maternal life endangerment cited personal responsibility for abortion as the anesthesia provider as a reason for declining to provide anesthesia. Interestingly, Dave,[[9]](#footnote-9) a late-career male anesthesiologist who works in a rural, community hospital, reported overall pro-choice views that a patient can make their own decisions and the government should not be involved, but he refused to participate in anesthesia care for abortion because he felt that assisting in pain control meant he was morally responsible for the patient’s abortion.

### Workplace Communication as Facilitator

Interpersonal communication in the workplace also emerged as a major theme that explained how and when anesthesia providers would participate in hospital-based abortion. Communication was defined as any verbal, written, or implied workplace interaction between the participant and another professional party (e.g. patient, coworker, obstetrician, supervisor, administrator) about abortion care. Beyond the basic concept that communication with patients, coworkers, and other departments is integral to the provision of any medical care, participants in our study frequently referred to how certain information impacted their perspectives on providing anesthesia for abortion in the hospital. Communication with coworkers, referring physicians, and others, particularly around indications for abortion, influenced the anesthesia provider’s expectations and participation in abortion care.

1. **Information and Source Facilitates Provision**

One of the hypothetical cases in our interview guide was designed to explore anesthesia providers’ reactions to participating in a D&E for previable preterm premature rupture of membranes (PPROM) before and after additional information was provided. The basic facts of the case were presented in Part A, which detailed a healthy patient with a live pregnancy who chose to terminate the pregnancy based on consultation with her obstetrician and neonatologist. In Part B, the anesthesia provider heard from the patient’s obstetrician about the specific medical risks associated with not having the procedure that the patient and her physicians had considered. Although many study participants were willing to provide anesthesia after the brief description of Part A, some participants were even more willing to provide anesthesia after Part B. Further, several participants who had expressed hesitation or had initially refused to participate as the anesthesia provider for that hypothetical patient became willing to do so after the additional information in Part B.

Ally[[10]](#footnote-10) is a mid-career anesthesiologist at a large, suburban, women’s hospital in Georgia, who described herself as “socially, a Democrat and financially, Republican.” As the case portion of the interview progressed from the medically indicated, hemolysis, elevated liver enzymes, low platelets (HELLP) patient, to the severe fetal anomaly patient, and finally to the otherwise healthy patient with previable PPROM, Ally became increasingly uncomfortable and morally distressed. She verbally reasoned through the medical implications of early rupture of membranes on the growth and development of the previable fetus and contemplated about the possible financial or social pressures the patient might be facing, but ultimately decided, “I don't blame her for that, and I don't judge her, but I don't know if I want to be part of it. … Because I do feel like there's a chance for that baby.” After the hypothetical conversation with the patient’s obstetrician in Part B, Ally became much more relaxed. When asked if and how the new information might change her impression of the case, she said:

It does. It does. It does. Because then how can you say, "I'm expecting you at this stage to put yourself at risk for, number one, sepsis, DIC, because for the risk of the child?” So it does change my opinion, and I would be more comfortable with [being a] part of it and not—and clear my conscience maybe.

The point of “clearing [her] conscience” is important because it shows that for some anesthesia providers, participation in abortion does carry moral weight, which the anesthesia provider must consider to be professionally involved in patient care.

The relationship between the anesthesia provider and the patient’s OB/GYN and education about obstetrical risks were facilitators to providing anesthesia for abortion cases. Many participants cited their own ignorance to every risk factor or consideration in obstetrics due to the nature of their careers as generalist anesthesia providers. Highlighting the importance of the content and source of communication on abortion care, Gary said:

If the OB really goes into that much, and she's that concerned, I would probably go ahead and accept – this is something that – I did not know that they usually only last one week with that. ... So, with that scenario, that would need to be somebody that needed to go ahead, and I wouldn't have a problem doing that.

Among the participants who were unwilling to provide anesthesia for most cases of abortion, the new information from Part B of the previable PPROM case did not change their willingness to participate in the case. However, a few of these participants admitted that the information did make them more sympathetic and understanding of the patient’s situation. Increased compassion for the reasons patients have abortions may also mediate hospital-based abortion stigma, even among anesthesia providers who decline to be involved.

1. **Abortion Indication and the Anesthesia Provider’s Role**

Although multiple participants noted that they would provide anesthesia for most abortion indications based on their ability to separate the personal views from their professional roles, anesthesia providers still wanted to know patients’ reasons for seeking abortion. Some participants insisted that abortion indication would not influence the anesthesia care they would provider, and others did. Some participants felt that indication was necessary information to perform a pre-operative risk assessment or to provide sympathetic, supportive care, while others wanted to know for personal or non-medical reasons. Many conversations on communication about abortion indication revolved around the anesthesia provider’s role in abortion provision, which was described as assessing medical risk, providing supportive care, remaining objective and non-judgmental, or ensuring that patients “understand all their options.” Although participants expressed mixed opinions on the level of knowledge anesthesia providers should have about a patient’s reasons for having an abortion, our findings highlight the importance of communication about this feature of abortion care.

Multiple participants, including Chad, the CAA who works at an urban, teaching hospital, described their general roles as anesthesia providers in terms of mitigating and managing risk factors. They spoke to their professional responsibilities to the mother as their primary patient over the fetus or newborn, which was a general principle taught during training. As a result, Chad reasoned that anesthesia providers would be more sympathetic and more willing to provide anesthesia for a patient having an abortion if they knew the medical risks involved. He explained,

For anesthesia [providers] … give as much information as possible, especially if that mother’s life might be in danger, because that’s a very big determining factor for most anesthesia personnel. That’s the main core of anything.

Understanding that anesthesia providers assess medical cases in terms of risk and safety, anesthesia providers are possibly more likely to provide anesthesia for patients with abortion indications related to medical risk, therefore this would be important information to communicate.

Ellen, the anesthesiology resident, explained that knowledge of a patient’s indication for abortion may facilitate anesthesia providers to be more sympathetic and supportive of their patients. She said:

...I think knowing enough about the patient’s background to provide appropriate supportive care, from both the anesthetic and psychological standpoint, so that the patient has good outcomes, I think is really important as well. ...to make sure that you are appropriately primed for a situation that you’re about to walk into.

Beyond the historical information required as part of an anesthesia provider’s pre-operative evaluation to determine route and safety of an anesthetic, a patient’s background, including abortion indication, would help prepare the anesthesia provider’s expectations for the patient interaction. Ellen implied that some indications for abortion, such as a severe fetal anomaly, would prime the anesthesia provider to offer comfort and support for patients, which is within the anesthesia provider’s roles and responsibilities.

However, for some participants, communication about abortion indication did not necessarily serve a medical purpose. For these participants, information about indication for abortion was requested to ensure that the patient had considered alternatives to abortion or simply to satisfy their curiosity. As the anesthesia provider, the student AA Summer wanted to know that the patient:

…truly understands what's happening … and maybe a little bit of reason. I mean, I know sometimes that's not necessarily the case, you can't always know why, or they could lie, but I would maybe like to know a little bit, you know, the reason behind, and then how extensive maybe the OB has discussed it with them and if they understand all their options….just to make sure all the subjects are covered.

Whereas Cindy, an experienced CRNA, expressed curiosity in knowing the patient’s reasoning, even though she thought it was not an appropriate subject to bring up with the patient:

I guess it’s kind of human nature to want to know about … the why’s or the background of a patient or what brought her here today, or … what might’ve brought her to this decision. But that’s really--that would really not be professional to ask questions or to delve into that unless she talked about it on her own.

Several other participants expressed conflicting viewpoints on anesthesia providers needing to know versus wanting to know about a patient’s abortion indication. Ellen expressed that beyond enhancing an anesthesia provider’s supportive care of a patient scheduled for abortion, specific knowledge of the indication for abortion would not change her performance as an anesthesia provider, saying: “And regardless of whe[ther] that would be an elective choice with the patient or not, [it] really does not change anything for me in terms of what I would provide.” However, she did acknowledge that an anesthesia provider’s personal biases may impact patient care if they disagreed with the patient’s decision:

I view Anesthesia's role to come in and reinforce [the OB’s discussion with the patient]. I think that the more providers you have involved in an intimate way can really benefit the patient. However, you can also introduce additional, emotional bias and judgment, as well, that people will bring to the table, which … will happen regardless. But I certainly don't see it as our role to impose another level of consent.

Even if it was impossible for anesthesia providers to prevent their personal biases from affecting patient care, Ellen supports communication with anesthesia providers on abortion indication due to the benefits to the patient of consistent messaging from all members of the patient’s care team in addition to providing sympathetic and supportive care as discussed earlier.

On the other hand, Mariah,[[11]](#footnote-11) an early-career CRNA who provides general anesthesia care at a women’s hospital, said she truly did not want to know the details of a patient’s reasons for seeking abortion because it would bias her patient care: “I kind of try to block that out, because I don’t want to put my own personal opinion on this patient.” Mariah maintained that abortion indication did not factor into her decision to participate in abortion cases, therefore communication may not be the only influence on an anesthesia provider’s participation in abortion provision.

Chad provided insight as to why communication about abortion indication might increase the likelihood that an anesthesia provider would assist in abortion. He explained that opportunities for deep patient-physician relationships between the pregnant patient and the anesthesia provider are limited due the nature of the field of Anesthesiology:

These patients we have are never really our patients; we’re just consulting on someone else's patients. … We’re not seeing the psychological effect of them coming to the office to see [their OB/GYN] … like month after month for years, … because you don’t have that connection to begin with. Somebody you knew and grew up with, you can see that they've been struggling with [the decision to have an abortion] … and go back and forth, and then they finally make the decision, it might change your mind. But, for [anesthesia providers], like we don't see all that. We just know that you showed up, you want an abortion, and we're not going to do it.

Chad’s comments not only explain why anesthesia providers may not be the automatic allies abortion providers seek when scheduling patients for hospital-based abortion care, but also highlight the impact communication about abortion indication may have on improving abortion access in this setting. If the anesthesia provider is told more about the patient’s background and reasons for seeking abortion, they may be more likely to sympathize with the patient, set aside any personal objections, and participate in the case.

### Social Ecological Model

In addition to the inductive codes and themes that emerged from the data, we also developed and applied deductive codes that represented multiple ecological levels of influence to participants’ perceptions on providing anesthesia for abortion. These segments were distilled and reorganized into a social ecological framework unique to anesthesia providers (see Figure 1). The following paragraphs highlight features of the SEM that explain the multiple intersecting and overlapping influences on this population of health providers that have not already been discussed earlier.

1. **Individual and Interpersonal**

Individually, anesthesia providers in our study reported a spectrum of personal beliefs about abortion. Some participants had personal experiences with pregnancy and abortion, which influenced their attitudes towards providing anesthesia for patients scheduled for abortion. For example, Betty, who is a CRNA and opposed to abortion in all circumstances, spoke of her personal experience as a pregnant teenager. She continued her pregnancy despite others telling her to have an abortion, and now she takes incredible pride and joy in her son and his children. One of our participants disclosed that she was pregnant at the time of her interview, and although the current pregnancy was planned and desired, she had thought about if she would ever terminate a pregnancy:

…[T]hrough my young life, through my career trajectory, [I] have always wondered if those were choices that I would make for myself or not, and what I would be okay with doing. … I personally believe that if I had a situation that either medically necessitated termination, or even had a strong, personal reason for doing so, then I think that would be within my right to do so, and I would pursue that end.

Personal experience with pregnancy was an influencing factor for several other participants as well. Two providers recalled working as the anesthetist for dilation and curettage (D&C) cases while pregnant. One recalled a very visceral reaction towards the sound of the suction machine during a D&C, which now colored her view of surgical procedures for miscarriage and abortion, “the current way of just sucking it out is absolutely barbaric.” These personal experiences and attitudes contribute to the individual level of the SEM.

Many other participants reported having friends, sisters, in-laws, spouses, and children who had had abortions. Participants also knew friends, family, and peers with pregnancies affected by medical or fetal conditions (e.g. fetal anomalies, PPROM) but continued their pregnancies. Participants responded to the pregnancy decisions of these interpersonal relations with a range of emotion, understanding, judgment, and non-judgment, all of which may have influenced their attitudes towards providing anesthesia for abortion.

For example, Adam, who works for a Catholic-affiliated hospital and personally identified as religious, responded to a case about abortion for a hypothetical patient whose pregnancy was affected by fetal Trisomy 21 and a severe congenital heart defect:

I can identify with this. I have a cousin who … [had] a child with a heart defect, and I know that this child is a healthy vibrant child after being delivered. So I know the possibility that a miracle could occur. But I am, again, siding with the opinion of the physician and the mother. I just, I don't think I have any place or opinion in that Mom making lifetime decisions … [S]he's already gone through enough; it's a difficult decision to make. I really have no place in that decision. I would have no problem providing anesthesia for the patient.

In Adam’s case, the experience of his cousin may have influenced his personal feelings towards abortion for indications of fetal anomalies, however this alone did not prevent him from participating in the hypothetical cases presented during the interview. His and others’ experiences represent the interpersonal level of the SEM.

Another component of the individual level of many ecological models is the concept of self-efficacy, or confidence in one’s own skills. Anesthesia providers with more clinical experience are likely to have higher self-efficacy in their skills as a general anesthesia provider than those earlier in their careers. Therefore, experience and self-efficacy may impact anesthesia providers’ willingness to participate in abortion care. For example, Summer, the student AA, had only provided anesthesia for one first-trimester D&C during her short, 3-week OB rotation. As a learner, her discomfort with the technical aspect of providing anesthesia for surgical abortion may have contributed to her unwillingness to provide anesthesia for the hypothetical second-trimester patients presented during the interview.

1. **Workplace**

Based on the volume and richness of conversation around interactions and relationships with patients, coworkers, supervisors, students, and colleagues in other departments, we assigned the workplace as a separate level of the SEM. This ecological level explores how the workplace directly impacts providers’ perspectives on abortion provision and is heavily based on personal experience.

Nearly all study participants gave examples of obstetric patients who had impacted them in one way or another. Most participants spoke to the high-risk nature of general OB, like Mariah and Ally, who recalled maternal deaths they had each witnessed. Others, like Ellen and Elmer, brought up fetal or neonatal deaths that influenced the way they provided anesthesia care. And a few recounted stories of the abortions for which they had provided anesthesia. For example, Betty recalled in detail the one abortion she had participated in as an anesthetist while she was in the Navy: a young woman with a life-threatening heart condition, who “bawled like a baby” when she had her procedure. Anesthesia providers spoke of both the technical expertise and emotional support they cultivated as a provider in response to these patient interactions. Betty stated that she would never participate in abortion outside of life-threatening maternal conditions, while Ally and Mariah both implied renewed respect for the seriousness of obstetrical emergencies.

Coworkers and supervisors were another large influence on study participants’ attitudes towards providing anesthesia in the setting of abortion. For example, Chad had explicit knowledge of the abortion attitudes of his coworkers, including his best friend from Alabama, who was adamantly against abortion. Unlike Chad, most participants did not know the attitudes of coworkers or supervisors and had never been called in to replace someone who morally opposed to providing anesthesia for a patient having an abortion. Many assumed it would be easy to call and find a replacement if someone had a moral objection to providing anesthesia for abortion. Some assumed the feelings of department leadership and referred to informal department policies of conscientious objection or requirements to perform anesthesia for abortion if a replacement could not be found.

Perceptions of coworkers’ opinions directly impacted anesthesia providers’ actions. Ally described one abortion case to which she had been assigned in the last year, and for which she was apprehensive to provide anesthesia:

I was like, "Oh God," you know, and I've got that massive anxiety because I'm thinking, "Oh, Jesus, what are the political ramifications of me going and saying I don't really want to be part of this?” Is that going to be okay? Is my chairman going to support me? Are my colleagues going to support me, or am I going to be looked upon as like that I'm crazy or whatever, high maintenance, whatever it is?

In the end, Ally provided anesthesia for the patient because she learned that the abortion was indicated for the wellbeing of the mother, and that the baby “was a foregone conclusion,” meaning it would not have survived. This participant’s story reinforces the importance that information exchange and communication had on her willingness to provide anesthesia for abortion as discussed previously.

Power dynamics in the workplace were a significant influence for most participants, who represented all levels of training, anesthesia provider type, and leadership positions. Richard, who worked in a smaller suburban hospital in a non-leadership position, formerly was Chief of Service at a larger institution. His previous facility performed abortion for all indications on a weekly to monthly basis. As department chief, he helped manage multiple anesthesia providers who refused to participate in abortion cases due to personal objections. He described some of the compromises their department had reached with the OB/GYN department as to when and where abortions should be scheduled to accommodate those anesthesia providers with conscientious objection.

1. **Institutional**

Characteristics of the participant’s hospital, including location, size, and religious affiliation impacted abortion service provision and therefore anesthesia providers’ ability to provide anesthesia for abortion. For example, Adam did not have the opportunity to provide anesthesia for induced abortion because of his hospital’s religious affiliation, despite him being willing to do so. Two anesthesiologists from small or rural community hospitals both commented how their obstetrics and neonatal services were limited, so high-risk obstetric cases were transferred out. As a result, these anesthesia providers may have had less opportunity to participate in hospital-based abortion by virtue of the low volume of high-risk maternal and fetal patients. These institutional features impact anesthesia provider participation in abortion provision.

Nearly all participants reported no knowledge of explicit hospital policies about abortion, although “we don’t do elective abortions here” was a common refrain. Several participants reported that elective abortions were previously performed at their institutions, but no one knew the exact reasons why those stopped. A few participants admitted that they knew nothing about any abortion clinics in their areas or who provided the anesthesia at those facilities Several respondents deferred to their workplace’s status as a “women’s hospital” to postulate on what they assumed to be the hospital’s values, however they had no knowledge of actual abortion policy at those facilities. In addition to the patient and the physician, some anesthesia providers in our study thought that the hospital board or ethics committee would be responsible for determining if and what indications of abortions were performed at their institutions. Chad reported that there was a hiring policy at his institution to ensure there were staff at all levels who would be willing to assist in abortion:

It's a very strong point, because at some point there has to be someone in the building who will do those cases. … [S]o when you're hired, you're asked, “Were you going to do it, yes or no? Yes or no?” so at any point in time, they can find somebody who will do that case. If it means just calling someone in or what may have you, they will find somebody to do that case.

In the Navy, Betty was clear that the Navy did not permit abortions. She detailed the multiple layers of consent and approval that her patient with the life-threatening heart condition had to go through to have her procedure done.

Another type of institution that was identified during the study that also applies to the institutional ecological level was the regional anesthesiology organization. Owing to our study’s primary recruitment occurring at Georgia anesthesiology society meetings, both regional societies for anesthesia providers, several participants were involved in specialized committees within these organizations. Through these organizations, some participants were involved in lobbying at the State Capitol, continuing medical education, or other extra-vocational activities that may have influenced their perspectives on abortion provision. Although not thoroughly presented here, organization involvement outside of work specifically impacted participants’ knowledge and interpretation of Georgia’s 22-week ban.

1. **Community/Cultural**

Higher levels of most ecological frameworks include overarching influences such as community resources, cultural values and norms, organized religion, and print or social media. Direct impact of features at this level are hard to measure from a public health perspective, but recognizing their influence is important to understanding abortion perspectives among this population.

Several participants in our study spoke to the different opinions about abortion in the Southeast compared to other regions of the US and globally. Some participants thought people in the Southeast held more tightly to religious views and were more likely to oppose abortion. Because of the culture of the Southeast, several providers thought that their facilities’ reputations would be negatively affected if those hospitals were known to frequently perform abortions. Gary, who completed his residency in the Northeast, stated that they commonly provided anesthesia for abortion at his training hospital. He said, “So, nobody really cared about our image. We did what we had to do. And I was trained where it was, and I would support it.” One participant referred to print media about abortion rates in the Northeast as evidence that abortion was being performed as a form of birth control in that region. Betty referred to her experience while in the Navy stationed in Korea, where “[abortion] was basically a method of birth control … [for] the girls next door.” These perceived cultural and regional differences potentially influenced our participants’ attitudes towards abortion and therefore their willingness to participate in abortion care themselves.

Other cultural norms and values were discussed by our study participants, including expectations of pregnancy, delivery, and adoption. Some talked about current US political-cultural discourse around abortion, specifically the pro-choice and pro-life movements. Dave,[[12]](#footnote-12) an anesthesiologist from a rural, community hospital thought the “abortion debate” was too polarized in the US, but did not think the pro-choice movement was helping either: “When [pro-choice advocates] go, ‘Hey, you know, I got my abortion, and it was a great thing.’ I don’t think that helps anybody because it’s not just a little incidental thing for a woman.” Dave’s perception of cultural values may have impacted his personal participation in abortion provision: he stated that he would not provide anesthesia for any patient seeking abortion outside of severe maternal illness. Several participants commented on how cultural norms change over time, including examples of anti-war protests in the 1960-70s and abortion. Betty also commented on generational differences affecting her attitudes towards abortion: “I think especially young people are kind of wishy-washy … It's thrown at them. You watch TV, and morals are gone. It's almost like you hear these people talk like a child is burden.”

1. **Political/Legal**

The highest level of the SEM includes policy and legal factors that influence the participation of anesthesia providers in abortion care. Only a few participants brought up political or legal considerations prior to the 22-week ban section of the interview guide, however afterward, more participants talked about facets of this ecological level that influenced their perspectives on participating in abortion care. Although data from participants’ perspectives on the 22-week ban are not presented here, the following paragraphs discuss how other state and national laws, the legal and judicial systems of the US, US political parties, and the healthcare system impacted our participants.

Most anesthesia providers in our study were unaware of or apathetic towards specific laws surrounding obstetrics and abortion. “Ignorance is bliss,” said one anesthesiologist in our study. This was echoed by Cindy: “It’s an interesting time with the laws and activism on many fronts. But again, that’s really sort of all out there. … I know what my role is here, and I try to do that well.” Summer knew only vague details about laws in other states, like New York’s Reproductive Health Act, which had recently passed at the time of her interview. Only a few participants had specific knowledge about laws affecting abortion, including Gary, who served on a political committee in his anesthesiology organization. Evie, a CAA who serves on a similar committee of Georgia anesthesiology assistants said that through her organization:

[I] constantly know what’s going on with laws within the Georgia Senate specifically, and so when there are things that do – new laws, I should say – that are on the table for what could be passed or could not be passed with legislation, I’m aware of them.

Besides representing a politically aware health care provider, Evie implies the potential political power healthcare providers have in addressing state laws.

Regardless of the limited knowledge of abortion laws in the US, multiple participants had strong opinions about certain US political parties, the legal and judicial systems of the US, and criminality of medical care. Dave, an anesthesiologist said:

Republicans would do much better if they would get out of the business [of legislating abortion]. … They’re trying to make laws for a small segment of ultra-religious, or along those lines, people that it sounds good. They’re never going to read the whole law, and they’re never going to have to be in that situation. And to try and criminalize the doctors is, either direction, is inappropriate.

Participants also expressed concerns that lawyers, judges, and juries did not know enough about medical decision-making to fairly try a criminal case on abortion. Fear of legal action was prevalent during discussions of the 22-week ban, reflecting the general impact of the political/legal environment on medical care.

## Summary of Findings

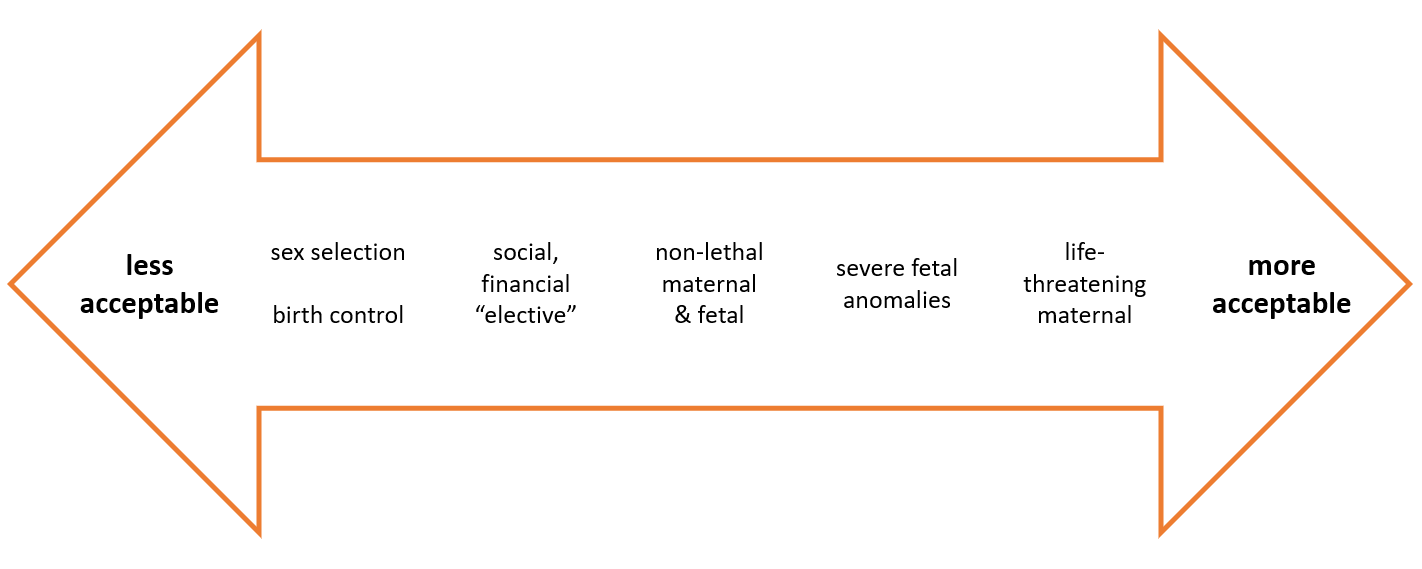
In summary, three major themes emerged from the data to describe how, when, and why anesthesia providers choose to participate in abortion. Many providers were able to separate their personal attitudes and opinions about abortion from their professional roles as medical providers. Some implicitly named ethical principles of medicine in justifying this difference. Others transferred the medical and moral responsibility of abortion provision to external loci, including the patient, the obstetrician, and the law. Communication with the obstetrician emerged as a facilitator for participation in hospital-based abortion, especially during discussions of abortion indication. For many participants, knowledge of abortion indication and the patient’s decision-making process increased the anesthesia provider’s willingness to participate in abortion care. Participants reported that knowing this information increased their sympathy for the patient and allayed any fears they might have had that the patient was having an abortion for “unacceptable” reasons. Broadly, anesthesia providers’ perspectives on abortion provision are impacted by multiple levels of the SEM, including individual, interpersonal, workplace, institutional, community/cultural, and political/legal levels, which mirror and overlap with the inductive themes described. Understanding these factors provide insight into the role of anesthesia providers in hospital-based abortion care and reveal opportunities to improve patient care and access.

Figure 1A picture containing text

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| --- | --- | --- |
| Table 1: Participant Demographics | |  |
| n=15 | **Categories** | **Count** |
| **Provider Type** | anesthesiologist | 6 |
|  | anesthesia resident | 1 |
|  | CAA | 3 |
|  | CRNA | 4 |
|  | SAA | 1 |
| **Gender** | female | 8 |
|  | male | 7 |
|  | other | 0 |
| **Years in Practice** | <10 years | 5 |
|  | 10-20 years | 3 |
|  | 20-30 years | 2 |
|  | >30 years | 5 |
| **Additional Training  (e.g. fellowship)** | no | 11 |
|  | yes | 3 |
|  | not answered | 1 |
| **Leadership Position** | no | 8 |
|  | yes | 7 |
| **Workplace Setting** |  |  |
| **location** | rural | 2 |
|  | suburban | 6 |
|  | urban | 5 |
|  | multiple | 2 |
| **setting** | ambulatory surgical center | 1 |
|  | hospital | 12 |
|  | multiple | 2 |
| **religious affiliation** | no | 11 |
|  | yes | 1 |
|  | not answered | 3 |
| **Types of Cases** | general | 13 |
|  | OB | 1 |
|  | other | 1 |
| **Frequency OB** | daily | 2 |
|  | weekly | 3 |
|  | monthly | 5 |
|  | rotations | 2 |
|  | yearly | 1 |
|  | not answered | 2 |
| **Ever Participated in Abortion** | no | 3 |
|  | yes | 10 |
|  | not answered | 2 |
| **Frequency of Abortion Participation** | daily | 0 |
|  | weekly | 0 |
|  | monthly | 0 |
|  | yearly | 5 |
|  | rarely, or in the past | 5 |
|  | n/a or not answered | 5 |

## Figure 2: Spectrum of Acceptability of Abortion Indication

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# Chapter 5. Discussion

## Introduction and Summary of Study

The primary aim of the current study was to describe the attitudes of anesthesia providers towards participating in abortion. Semi-structured, in-depth interviews were conducted with fifteen Georgia-area anesthesia providers who care for obstetric patients. Our sample represented a range of anesthesia provider types and years of experience. Most participants practiced general anesthesiology in the hospital setting and infrequently participated in abortion cases. Regarding the study’s primary aim, several inductive themes emerged, which explained anesthesia providers’ perspectives on participating in hospital-based abortion. These included professional versus personal, communication as facilitator, and transfer of responsibility. These themes that emerged from our inductive analysis were consistent with a general SEM, which is used to further organize and make sense of findings regarding the multiple influences on this population of health care providers in hospital-based abortion care.

## Discussion of Key Results

Overall, anesthesia providers in our study were more accepting of abortion for high-risk maternal indications or in cases of severe fetal anomalies compared to social or financial indications. The range of personal abortion attitudes and acceptability of certain categories of abortion indication in our study were similar to the national sample of anesthesiology residents from Stowers et al’s study.24 Further, anesthesiology residents in Stowers et al’s study reported a high rate of exposure to abortion during their training, to which many of the anesthesiologists in our study also attested. Comparatively, only one of the CAAs in our sample specifically reported abortion exposure during training; the other CAA and CRNAs reported little or no experience with abortion provision during their training in obstetric anesthesia. Studies of other populations of health care providers, including OB/GYN physicians and nurses, also show a range of personal abortion attitudes by abortion indication, usually with greater acceptability of abortion for high-risk medical conditions over fetal anomalies, contraceptive failure, or other reasons.20,23,87 Although our study was not designed to quantify anesthesia providers’ acceptability of abortion stratified by indication, responses from our participants seem consistent with previous research. However, our findings related to provider acceptability of abortion serve to extend this body of work, as our participants’ perspectives and experiences highlight the intersection of abortion attitudes, beliefs, and norms with the understudied service delivery and systems level aspects of abortion provision..

Besides individual and interpersonal factors like personal beliefs, patient experiences, and interactions with family or friends, we found that anesthesia providers’ perspectives on participation in hospital-based abortion are influenced by the wider context in which they live, which includes workplace environment, institutional policies, community and cultural norms, and politics. The SEM is widely used in the field of public health to characterize the multiple and intersecting spheres of influence on health behavior. A similar ecological approach has been applied to patients’ experience with abortion stigma,46 but has never been applied to anesthesia providers’ role in abortion provision. As integral members of the health care team, understanding the factors that influence anesthesia providers’ participation in abortion is critical in developing future interventions to improve patient access to hospital-based abortion services.

Among our study’s sample, the culture and politics of their practice setting in Georgia shaped anesthesia providers’ thoughts and actions around participation in abortion care. In the literature, abortion attitudes and susceptibility to abortion stigma among healthcare providers varies by culture and location.14,24,69,88 Previous qualitative research exploring the resistance or vulnerability to abortion stigma of healthcare providers in abortion in a Western US state found that location in a ‘liberal’ state may facilitate resistance to abortion stigma.69 Among the general population, communities with greater presence of religious institutions were more likely to have anti-abortion views and less likely to have an abortion clinic in their county, affecting abortion access and stigma.88

Findings that reflected the multi-level influences on anesthesia providers’ participation or non-participation in abortion care were present and interwoven with the inductive themes that emerged from our data, which are discussed below.

### Professional versus Personal

Differentiating professional versus personal views was a recurrent theme. Anesthesia providers in our study frequently and consistently reported different personal opinions on abortion compared to their theoretical or actual practice. Among participants who held personal views that opposed abortion, these personal views usually did not prevent them from providing anesthesia for patients seeking abortion. Many of these providers referred to their professional role as a healthcare provider, principles of medical ethics, or the influence of coworkers, which superseded acting according to their personal views in the workplace setting.

Those anesthesia providers in our study who did not separate their professional roles from their personal feelings towards abortion also reported closely held religious beliefs, which may have influenced their responses. This finding is consistent with Harris et al.’s national survey of US OB/GYN providers, which found that OB/GYNs for whom religion was described as ‘very important’ or who lived in the South were more likely to oppose abortion and less likely to refer their patients seeking abortion.87

Healthcare providers’ attitudes on participation in abortion work likely exists on a spectrum between conscientious objection and conscientious provision. Abortion work has traditionally been argued from a perspective of conscientious objection or refusal to provide care based on one’s core beliefs, but recent attention has been paid to healthcare workers whose participation in abortion is also compelled by conscience.89 Previous studies have highlighted women’s health providers’ differing stances between their support for the legal status of abortion and their choice to provide abortion.69 Despite the political discourse in the US that polarizes abortion, many people may hold seemingly contradictory views about abortion, a phenomenon referred to as ‘holding the tension of opposites.’90 For these people, acknowledging both that abortion stops a beating heart and that people should have access to abortion services are not incongruous with their own lived experiences. Likewise, for some of our participants, it is possible to dislike the concept of abortion but sympathize for patients (or themselves) having one. Further research is needed to explore how holding the tension of opposites can be applied to decreasing abortion stigma in the healthcare field, including among anesthesia providers.

The ability of anesthesia providers to separate their professional roles from their personal beliefs may facilitate participation in abortion care in this group of health care professionals. McLemore, Kools, and Levi described a similar phenomenon among hospital nurses and their decision-making around participation in nursing care for patients having an abortion. The authors describe this process as ‘calculus formation,’ a real-time mental analysis of the moral risks and benefits to caring for abortion patients according to their personal feelings and professional obligations, knowing how to provide care versus knowing why, and delineating the parameters of the nurse-patient relationship.23 Our data revealed similar considerations, although anesthesia providers in our study were more likely to refer to their professional roles in terms of medical risk and ethics.

Some participants, even those who personally disagreed with abortion, vocalized a professional imperative to facilitate abortion access, which we framed in terms of principles of medical ethics: beneficence, non-maleficence, justice, and patient autonomy. These ethical principles have their origins in Hippocrates’ *Oath* and remain relevant to medical training and practice in the present day.91,92 Beneficence and autonomy-based ethical arguments have been made to justify the medical practices of induced abortion and feticide. These authors argued that the obstetrician’s role in abortion should primarily be based on professional conscience rather than individual conscience based on these ethical principles.93 Our findings reveal that anesthesia providers also implicitly invoke principles of medical ethics when considering their professional roles in abortion care and highlight the opportunity to engage this group of health care providers in conscientious provision of abortion in the hospital setting.

A potential concern about anesthesia providers who act against their personal beliefs for the sake of their perceived role as an objective healthcare provider is that implicit stigmatization towards patients seeking abortion may occur. In previous studies of nurses’ attitudes towards abortion patients, many nurses admitted to personally judging patients, but claimed that they would never show that judgment.94,95 These results point to the commonality of abortion stigma and imply that stigmatizing behavior may be subconsciously enacted on patients. Although many of our participants claimed that they would not judge a patient seeking abortion or overtly display their disagreement with the patient’s actions, it is possible that some words and actions, (e.g. false sympathy or forced-neutral tone), may be perceived as judgment by the patient and perpetuate abortion stigma in the hospital setting.46

Besides the unintentionally stigmatizing behaviors that may result from anesthesia providers acting against their personal moral compass, chronically acting against your beliefs may lead to increased moral distress and compassion fatigue among providers. Moral distress has been described in the Psychology literature as “the psychological disequilibrium and negative feeling state experienced when a person makes a moral decision but does not follow through by performing the moral behavior indicated by that decision.”96 In the case of abortion work, if the individual’s moral decision is that abortion is wrong, then the corresponding action would be to decline participation in patient care for abortion cases. Especially for anesthesia providers who might be designated as the “willing providers in abortion” at their workplace, the increased frequency of being called in to assist during abortion may add to that moral distress, a fear expressed by several of the participants in this study. Although not expressed by our participants, moral distress can also occur when their moral decision is that abortion is right, but their workplace (e.g. institution, department, or coworkers) does not allow abortion provision.

Among “expert nurses in abortion care,” several retention and recruitment strategies have been identified which may assuage some of the negative cumulative effects of moral distress These included exposure to abortion work through training, flexibility in clinical work, access to leadership opportunities, and participation in professional societies.22 These findings in the field of nursing could be applied to the cultivation of anesthesia providers in abortion work. Our research and others’ demonstrate that anesthesiologists gain exposure to abortion during residency,24 which could be a starting place to address concepts of professional versus personal beliefs and in holding the tension of opposites. Recruiting more anesthesia providers willing to participate in abortion care also allows those providers to share the workload and reduce additional moral distress. Anesthesia providers in our study were already involved in professional societies and many held leadership positions, making them potential and resilient allies in hospital-based abortion care.

### Communication as Facilitator

Our data demonstrate that communication with the health provider performing the abortion is important to anesthesia providers in making their decision to participate in hospital-based abortion. Additional information about the clinical case was more likely to change the mind of an anesthesia provider who was previously hesitant to provide anesthesia for abortion. The most common source of information identified by study participants was the OB/GYN and not the patient. Many participants felt that their role was not to add judgment or “impose another level of consent,” but to confirm with the physician what had been discussed with the patient.

Specific information like indication for abortion and the patient’s decision-making process were highlighted as important to the anesthesia providers in our study. Our findings mirror that of McLemore, Kools, and Levi, who interviewed nurses who cared for abortion patients on Labor and Delivery, post-anesthesia care units, and emergency departments. In otherwise hesitant nurses, knowing more about the patient’s background and why the patient was having an abortion facilitated their willingness to provide nursing care to that patient.23

Our findings on the importance of workplace communication in facilitating anesthesia provider participation in hospital-based abortion care recalls the impact of storytelling on political-cultural discourse on abortion worldwide. Storytelling is empowering to abortion rights advocates because personal narratives help normalize and humanize abortion more easily than abstract ideas and medical facts.97 For example, the “1 in 3 Campaign” is a national program by Advocates for Youth that aims to combat abortion stigma through storytelling. A 2012 evaluation of their storytelling campaign demonstrated strengthened support for abortion access and reinforced views on abortion as a responsible decision among minority youth with varying personal opinions about abortion.98 In Ireland, digital storytelling was shown to raise awareness of the barriers created by restrictive abortion laws and reject false narratives about abortion.99 Based on our study’s findings, there may be a role for storytelling to facilitate abortion participation among anesthesia providers as well.

Anesthesia providers, OB/GYNs, and nurses demonstrate a range of acceptability of abortion indication.20,24,87 Therefore, information about a patient’s reason for abortion very practically allows the anesthesia provider to decide if the patient’s need for abortion outweighs the potential moral cost for the anesthetist to provide the anesthesia. Despite many research participants stating that they would not judge a patient choosing abortion, anesthesia providers also wanted to know abortion indication both to satisfy their “human nature” and to provide appropriate patient interaction like sympathy for the loss of a desired pregnancy. Previous reports in the anesthesiology literature show the important role anesthesia providers have in providing emotionally-supportive patient care,27 which is also reflected in our study.

Several anesthesia providers in our sample mentioned that current anesthesiology training and continuing medical education were insufficient to address the unique issues associated with abortion. Although many participants admitted that the technical aspects of anesthesia care for abortion were no different than in other obstetric and gynecologic procedures, many saw abortion care as distinguished by personal, psychosocial, moral, ethical, and political issues. Multiple participants recommended increased collaboration with OB/GYN departments to increase understanding of patients who have abortion and to improve collegiality between the departments and the quality of care for these patients. Specific recommendations mentioned by participants included regular educational conferences with OB/GYN or presentations at regional meetings. One participant offered the example of the improved collegiality to his department and Trauma Surgery after initiation of joint Morbidity and Mortality conferences. He recommended that quarterly or yearly meetings with OB/GYN may improve communication between departments regarding abortion. Understanding the importance of communication around abortion as a facilitator to abortion access in the hospital setting has implications for the development of collaborative care models in abortion, as will be discussed later.

### Transfer of Responsibility

Transfer of responsibility for abortion was a unique finding in our study, in which participants explained that anesthesia providers are ultimately not responsible for the patient’s choice of abortion. All participants in our study exhibited passion for their field and desire to provide safe, effective anesthesia for their patients, so transfer of responsibility is not to imply that anesthesia providers do not care about abortion patients. Instead, this theme explains that anesthesia providers may be acceptable of participating in abortion due to their ability to recognize that the consequences of the abortion decision do not rest on themselves. Instead, anesthesia providers trust the patient, the health care provider performing the abortion, or legal parameters to dictate the ‘right’ or ‘wrong’ of abortion.

This theme helped describe both that the anesthesia provider’s professional role was not to weigh-in on the abortion decision, but also could be considered as a coping strategy to assuage the anesthesia provider’s potential moral distress for providing anesthesia against their personal views towards abortion. Transfer of responsibility resembles the concept of “locus of responsibility,” which is described in Social Psychology as what an individual perceives as the source of responsibility for an outcome, usually described as either internal or external to the person.100 Related to locus of control, this concept can be viewed as either adaptive or maladaptive depending on the circumstance. As applies to our research, although anesthesia providers are directly providing medical care for the patient having a hospital-based abortion (e.g. administering sedation during surgical induced abortion), they transfer the locus of responsibility for abortion to an outside party (e.g. the patient, the provider, or the law). More research is needed to further explore how transfer of responsibility applies to the field of abortion practice and other medical issues.

Not all participants in our study believed that anesthesia providers were exempt from the moral onus of abortion. Those participants felt that their participation would be performing the abortion by proxy, which was unacceptable to them. Importantly, anesthesia providers can be politically pro-choice, but still decline to participate due to this perceived moral responsibility. Our research suggests that complex personal perspectives on abortion care are possible, and moral responsibility is an important feature to consider when working with anesthesia providers and other healthcare personnel.

## Strengths and Limitations

This thesis presents the first known qualitative evaluation of anesthesia providers in abortion. It provides thick, rich description of Georgia-area anesthesia providers’ perspectives on participating in the anesthesia care of patients scheduled for abortion. Strengths include rigorous qualitative design, novel approach to abortion discussion, and incorporation of public health theory.

In qualitative research, study completion is determined by saturation as previously described in Chapter 3. Development of more defined criteria to determine data saturation is ongoing in the field of qualitative research. In one homogenous sample, twelve was the minimum number of participants needed for thematic saturation.101 In a recent methodological study by Hennink, Kaiser, and Marconi, code saturation occurred when researchers had “heard it all,” which was reached in their sample after nine interviews, but meaning saturation, the point at which no new insights or nuances emerged (when researchers have “understood it all”) occurred between 16-24 interviews.51 Based on thematic analysis, our study achieved thematic saturation for the primary aim, suggesting that all major concepts characterizing anesthesia participation in abortion provision were identified.

Given the qualitative nature of the study, generalizability is not applicable. Instead, qualitative researchers aspire to transferability of the data to other settings or populations.48,81 Our data are likely transferable to other hospital-based anesthesia providers in politically-conservative parts of the country, however may not be transferable to all anesthesia providers in the US. Additional research is needed to further define and explore anesthesia providers perspectives on abortion provision outside of Georgia.

Case-based scenarios were a novel way to introduce the topic of abortion in the present study and were well-received by participants. Case-based scenarios may have appealed to anesthesia providers because of the common use of case-based learning approaches in medical training.102 The familiarity of thinking through a patient case may have facilitated open and honest discussion among participants, allowing them to appropriately frame abortion as a medical procedure rather than a “taboo” topic.

The most rigorous public health research is grounded in theory.37 Conceptualizing and testing a research question against the basis of a working theory on health behavior helps connect the current study to existing knowledge and pushes the field forward. Theory-based research is increasingly utilized and encouraged in the field of public health.34,37 Given the thesis’s thorough incorporation and analysis of the SEM as it applies to our population, results from the study deepen our understanding of this population of health care providers that is important to abortion care.

The results of this thesis are limited by several important considerations. These include the low frequency of abortion practice among our sample, social desirability bias, selection bias, and the personal bias of the researcher.

Although many anesthesia providers in our study theorized that they would be willing to participate in abortion for any or for certain abortion indications or gestational ages, these present only hypothetical considerations. Most of our participants did not have high-volume or frequency of experience in abortion, so we cannot conclude that their actual practice would mirror their hypothetical answers during the interview. Due to the fragmentation of abortion care in the US and other reasons, most US abortions are not performed in the hospital setting.103 It is possible that anesthesia providers who work in abortion clinics or other specialized clinics and more commonly participate in abortion care may have different perspectives on their work. Understanding this, the research team was intentional in recruiting primarily hospital-based general anesthesia providers since they are a targetable population for future research and intervention to improve patient care in abortion.

Social desirability bias may have also influenced participants’ responses, such that they expected that they should express politically moderate or pro-choice attitudes and willingness to participate in the presented cases. The interview guide was designed with neutral language and the topic of abortion was gradually introduced after rapport-building to minimize this effect; however, the influence of social desirability bias cannot be eliminated from analysis of our results.

Additionally, selection bias affects interpretation of study results. Because our sampling frame for recruitment was anesthesia providers in attendance of regional professional society meetings, our study sample may not be representative of general anesthesia providers in Georgia. Snowball sampling was planned to reach non-attendees of these meetings; however, effectiveness of this recruitment technique was limited. A large portion of our study sample reported leadership positions, which may also have impacted our findings.

Finally, the primary author of this thesis (JR) is a practicing OB/GYN and abortion provider. As such, she has a personal bias towards increased abortion access and special interest in increasing collegiality and collaboration with anesthesia providers. Overall, interviews were conducted in a neutral, non-judgmental manner and few participants knew about her clinical abortion work at the time of interview. Regardless, the possibility of personal bias affecting study results cannot be eliminated.

## Implications, Recommendations, and Conclusions

Our research has several important implications for how to improve patient care for people seeking abortion, particularly in the hospital setting where a multidisciplinary team approach with anesthesia providers and others are critical. By understanding the ways in which anesthesia providers perceive their roles in abortion provision, future interventions may be designed that target this population in order to reduce abortion stigma and improve patient care. Stigma is minimized by creating and existing within safe spaces in the workplace, and when abortion is normalized in professional settings, resistance to the effects of stigma increases.69 Our findings also suggest that future research and intervention to improve collegiality and participation in abortion care among hospital-based anesthesia providers should consider higher-order influences like location, religion, culture, and political climate. Recommendations on future directions include conducting values clarification workshops and interdepartmental professional development sessions, increasing exposure to abortion during anesthesiology training, developing collaborative care models in the hospital, and engaging anesthesiology organizations to advocate on behalf of abortion access at local and national levels.

Previous studies have shown the value of interdepartmental and professional development workshops in the setting of abortion.70,104,105 All health care workers involved in abortion, including anesthesia providers, should explore and understand their values and beliefs, including how their words and actions may impact or stigmatize their patients, their colleagues, and their community.50 Values Clarification for Abortion Attitude Transformation (VCAT) is one validated curriculum that has been used to identify the moral and ethical standings of individuals and transform attitudes regarding abortion.105 Use of values clarification activities have been shown to improve access to second-trimester abortion, and has been widely utilized by many groups locally and globally, inside and outside of medicine.105 VCAT activities can be adapted for anesthesia providers to incorporate the themes generated by this research: distinguishing professional versus personal beliefs, transfer of responsibility, and communication as facilitator.

Another intervention targeting stigma among healthcare providers that has been developed is the Providers’ Share Workshop (PSW). This is a six-session workshop for abortion providers to discuss their experiences in abortion, including stigma.70 A prospective study of nationwide participants of PSW has demonstrated reduced provider stigma and improved provider quality of life in abortion service delivery settings.21 Although PSW has not yet been used outside of direct abortion provision settings, this type of intervention aimed at reducing stigma has strong implications for others in abortion care, such as anesthesia providers.

Abortion stigma has been measured at the individual and provider levels47,71,106 and such scales could be applied to groups of anesthesia providers to evaluate the effects of stigma on patient care at the hospital level. Even among anesthesia providers who conscientiously object to administering anesthesia for abortion, VCAT, PSW, and similar interventions may increase awareness of abortion stigma, improve intra- and inter-departmental communication, and thereby improve patient care.

Another recommendation guided by findings in the current research is that trainees in anesthesiology should be exposed to abortion as part of training. Participants in our study who had been exposed to abortion care were more likely to sympathize with patients, understand access issues, and participate in abortion care. Similar findings were demonstrated among nurses with exposure to abortion care during training.22 If an anesthesia provider opts out of participation in abortion during training, other professional skills might be gained from the exposure to patients seeking abortion, as was seen among partial participators in abortion training in OB/GYN residencies.107

Our findings may also inform the implementation and improvement of collaborative care models and communication between hospital care teams. Besides the addition of regular academic educational conferences as recommended by a few of our participants, multidisciplinary care communication could be enhanced based on findings of our study. This may take the form of daily surgical team briefs or pre-operative perinatal conferences as required in France.74 Additional research is needed to evaluate the effectiveness of such multidisciplinary conferences to reduce hospital-level abortion stigma and improve patient care in US settings.

Another strategy to break the silence of abortion stigma and improve patient access to abortion in the hospital setting would be to partner with anesthesia providers involved in their regional and national professional organizations. OB/GYN organizations have demonstrated their institutional commitment to comprehensive reproductive health, including abortion,108,109 and anesthesia organizations could be called upon to do the same. Several participants in our study were involved in policy affairs or held leadership positions in their professional societies. By seeking organizational leaders’ alliance in the shared work of reproductive health, we may be able to address institutional policies and state laws that limit abortion access.

In conclusion, this thesis explored the perspectives on abortion provision among a broad range of Georgia-area anesthesia providers. Through modified grounded theory techniques, several important themes that describe anesthesia providers’ decision-making process to participate in abortion care were identified. Professional versus personal described how anesthesia providers distinguished their professional roles as an objective health care provider and their varied personal views about abortion. Transfer of responsibility was a phenomenon in which anesthesia providers identified others in abortion care who were more responsible for the ultimate decision of abortion. Participants in our study trusted patients, abortion providers, and the law to make abortion care decisions. Finally, communication with abortion providers on the patient’s abortion indication was important to some participants in deciding how and when to participate in anesthesia care for abortion. More information from the abortion provider about the patient’s specific circumstances increased sympathy and the likelihood of participation among anesthesia providers. Major findings from the present study were set in a multi-level ecological model, which increased our understanding of the complexity of anesthesia providers’ perspectives on abortion provision. Findings from this study have several important implications on improving abortion access and reducing abortion stigma at the hospital level. Future interventions to improve anesthesia providers’ understanding of their personal values in the setting of their professional roles, increase exposure to abortion during anesthesiology training, and engaging anesthesiology leadership in regional and national organizations are indicated based on study findings.

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# Appendix 1: Participant Interview Guide

Survey ID:

Date:  
Start time:

End time:

I appreciate you taking the time to participate in this interview. As a reminder, our discussion will be completely confidential. Before we begin, I would like to ask if you would share your email address or phone number with the study team. We would like to contact you during data analysis for clarification of answers if needed. Additionally, we are interested in reaching as many anesthesia providers as might be interested in participating in the study. Before or after the interview, please share any names or contact information of fellow anesthesia providers who you think might be interested to talk to the study team. With your permission, we may contact you at a later date for these referrals. We would keep your identity and information confidential if we were to reach out to any person or people you recommend.

Thank you.

1. **Demographics**

I would like to start by asking you a few questions about your background. I will ask these questions out loud and record the answers.

1. Name
2. Gender (preferred pronouns)
3. Provider type
   1. Anesthesiologist Assistant
   2. Certified Registered Nurse Anesthetist
   3. Anesthesia resident
   4. Anesthesiologist
   5. Other
4. Have you received any additional training (e.g. fellowship) in specialized anesthesia care?
   1. Yes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. No.
5. How many years have you been working in Anesthesiology? (mark if including schooling)
   1. Fewer than 5 years
   2. 5-10 years
   3. 11-20 years
   4. More than 20 years
6. **Employment**

Next, I’d like to ask more about where you work and what kind of patients you care for.

1. Tell me about where you work (e.g. academic or private practice; ambulatory surgical centers or hospital; rural or urban; secular or religious)
   1. Probe: What kind of learners are present (e.g. residents, students)?
   2. Probe: Do you have an administrative/leadership role at your primary place of work? If so, what is your role?
   3. Probe: Briefly, what kind of cases do you do?
2. How often do you provide anesthesia for pregnant patients (this can include all procedures related to or unrelated to pregnancy)?
   1. Probe: Where do you care for obstetric patients? (e.g. Labor of Delivery, Main OR, ambulatory surgical center)
3. **Obstetrical Experiences**

Thank you for answering those questions. Now we will talk more in-depth about some of your personal experiences working with pregnant patients. These might be for labor and delivery or for other surgical cases on pregnant patients (i.e. patients pregnant at any gestational age). Most of these questions are designed to be very open-ended, and there is no right or wrong answer.

1. In thinking about the technical aspects of anesthesia care for the pregnant patient, what are some of the most important anesthetic challenges associated with this population?
   1. Probe: How might the type of case affect this? (e.g. c-section, D&C, appendectomy)?
   2. Probe: What are considerations at different gestational ages?
2. Think back on your training in anesthesiology. Describe your exposure to working with pregnant patients?
   1. Probe: Do you think your training provided adequate exposure to anesthetic management of pregnant patients? How so or why not?
3. What ethical issues arise when caring for pregnant patients (i.e. women of all gestational ages)?
   1. Probe: How do these challenges impact the way you provide anesthesia care?
   2. Probe: Are there any emotional challenges to providing anesthesia in a complex obstetrical case?
   3. Probe: How do you personally feel about participating in a delivery when a fetus isn’t going to survive?
4. Tell me about a recent experience you’ve had anesthetizing a pregnant patient, where the case was complex or complicated. Walk me through the case from your perspective.
   1. Probe: What was challenging about this case?
   2. Probe: Did this case evoke an emotional response? How did this case make you feel? How did you deal with that response afterward?
5. **Cases**

Thank you for sharing your experiences. For the next segment of the interview, I will read out loud several cases about pregnant patients requiring dilation and evacuation (D&E) or delivery, and I would like to know your thoughts about and reactions to each case. These cases are not designed to test your medical knowledge, but instead to generate dialogue about the issues involved.

1. A 20-year old is 21 weeks along in her first pregnancy. She is diagnosed with **HELLP syndrome**, a very severe form of pre-eclampsia, and is admitted to the ICU for critical care management. Her OB recommends delivery. During labor, you are consulted for epidural placement.

Take a second to think about this case and how you might respond to the situation.

* 1. Probe: Besides any technical aspects of providing anesthesia for this patient, does this case evoke any other thoughts or emotions?
     1. Probe: Do any features of the case make you uncomfortable? How so or why not?
  2. Probe: Would you provide the anesthesia for this case? Why or why not?
     1. (For supervising anesthesiologist): If your AA or CRNA were providing the anesthesia and you were supervising the case, would you participate?
     2. (for anesthetists or trainees): If your attending/supervisor assigns you to this case, would you (feel compelled) to participate?
  3. Other information (if asked):
     1. Prior to her admission, she was healthy without relevant medical, surgical, social or family history. She has no history of anesthetic complications. She is ASA I and Mallampati I and the rest of physical exam is unremarkable. Platelets are 140 and stable over last six hours.
     2. The patient’s OB informs her that HELLP syndrome does not get better with time. The only true cure is delivery. Serious complications of this disease include seizure, stroke, cerebral edema (brain swelling and damage), renal failure, and liver failure.
     3. Induction of labor is a multi-day process, in which medical and mechanical efforts are employed to induce contractions to deliver the fetus. At this gestational age, it is very similar to a term induction for childbirth.
     4. You are the only anesthesia provider available at the request of her epidural. It’s a holiday weekend, and you’re the only one available.

1. A 40-year old woman is 21 weeks pregnant with a fetus affected by **Trisomy 21**. Ultrasound demonstrates that the fetus has a very severe congenital heart defect that is not compatible with sustained life after birth. After thorough consultation with several specialists, she decides to proceed with termination of pregnancy via D&E. You are scheduled to provide anesthesia for her procedure.

Take a second to think about this case and how you might respond to the situation.

* 1. Probe: Besides any technical aspects of providing anesthesia for this patient, does this case evoke any other thoughts or emotions?
     1. Probe: Do any features of the case make you uncomfortable? How so or why not?
  2. Probe: Would you provide the anesthesia in this case? Why or why not?
     1. (For supervising anesthesiologist): If your AA or CRNA were providing the anesthesia and you were supervising the case, would you participate?
     2. (for anesthetists or trainees): If your attending/supervisor assigns you to this case, would you (feel compelled) to participate?
  3. Probe: how does your impression of the case change if there was a fetal demise or stillbirth prior to delivery?
  4. Other information (if asked):
     1. The patient is otherwise healthy without relevant medical, surgical, social or family history. She denies a history of anesthetic complications. She is ASA I and Mallampati I, and physical exam is unremarkable. She has no other contraindication to general or regional anesthesia.
     2. You are the only anesthesia provider available on the day of her scheduled procedure. It’s a holiday weekend, and you’re the only one available.

1. A 32-year old woman at 21 weeks of pregnancy is diagnosed with **preterm premature rupture of membranes (PPROM)**. She currently feels well and has no signs of infection. She and her OB discuss options of continuing versus terminating the pregnancy, including the risks, benefits, and alternatives of each. After a long discussion, including consultation with Neonatology, the patient decides to proceed with D&E.

Take a second to think about this case and how you might respond to the situation.

* 1. Probe: Besides any technical aspects of providing anesthesia for this patient, does this case evoke any other thoughts or emotions?
     1. Probe: Do any features of the case make you uncomfortable? How so or why not?
  2. Probe: Would you participate in this case? Why or why not?
     1. (For supervising anesthesiologist): If your AA or CRNA were providing the anesthesia and you were supervising the case, would you participate?
     2. (for anesthetists or trainees): If your attending/supervisor assigns you to this case, do you feel compelled to participate?
  3. Other information (if asked):
     1. She is otherwise healthy without relevant medical, surgical, social or family history. She has no history of anesthetic complications. She is ASA I and Mallampati II, and the rest of physical exam is unremarkable. She has no other contraindication to general or regional anesthesia.
     2. D&E is a two-day procedure with intra-cervical dilator placement followed by surgical evacuation of the uterus with instruments and suction. The OB tells the patient that she surgery usually takes <30min, and she would be able to go home the next day.
     3. During the Neonatology consult, the neonatologists reviews the gestational age of the pregnancy, expected survival and neurologically-intact survival at that gestational age. They also review the expected neonatal morbidity associated with prolonged rupture of membranes (e.g. pulmonary hypoplasia, infection)
     4. You are the only anesthesia provider available on the day of her scheduled procedure. It’s a holiday weekend, and you’re the only one available.

3b. In the doctor’s lounge before the scheduled procedure, you run into the OB taking care the patient. The OB tells you that the patient has the option to continue the pregnancy, which would entail inpatient admission for duration of pregnancy. Antibiotics and steroids would be administered at viability (e.g. 24 week). The latency or estimated time until delivery after PPROM is unknown, but most women deliver within one week despite all efforts. The OB goes on to talk about the potentially severe medical risks to the mother associated with expectant management (i.e. continuing the pregnancy), including uterine infection, which may lead to maternal sepsis, placental abruption with risk of maternal hemorrhage, cord accident resulting in fetal demise or emergent surgery, among others.

* + - 1. Probe: Does this information change your impression of the case? How so or why not?
      2. Probe: Does this information change your willingness to provide anesthesia for this patient? How so or why not?

1. **20-week ban**

Thank you for answering those questions and sharing your thoughts. For the next section, I’d like to talk about a state law that may impact care on obstetric care in complex cases.

1. Are you familiar with the “20-week ban” in Georgia? In your own words, what do you know about it?

Response: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Thank you. Now, I’ll read a summary of the law and ask you a few follow-up questions. If you have any questions about terminology or would like to read the law for yourself, I have a copy here you can look over.

\*\*

In 2012, the Georgia state legislature passed a law that bans termination of pregnancy after 20 weeks post-fertilization (i.e. 22 weeks past LMP). There are exceptions to the law in the cases of pregnancies that are diagnosed to be “medically futile,” or in cases with severe risk of maternal morbidity and mortality.

Should termination beyond 20 weeks meet one or more of these exceptions, the termination should be performed in a way that maximizes neonatal survival. This rule may also be excepted in the case of maternal life endangerment or risk of severe bodily harm. If the delivered neonate is capable of sustained life, resuscitation must be given. Individuals who perform a criminal abortion in violation of this law can be imprisoned up to 10 years.

This law went into full effect 6/2017.

\*\*

1. Having heard this summary, what do you understand about this law?
   1. Probe: If you already knew about this law, what parts are different from your understanding?
2. What is your reaction to the law?
   1. Probe: How does it make you feel?
   2. Probe: Are there other aspects of this law that strike you in any way?

1. How might this law impact care of obstetric patients (past or present)?
   1. Probe: Have you had a case in the past where this law might have impacted the case you worked on? Can you tell me about a specific example?
   2. Probe: What might have been different about the cases we discussed earlier if this law was in effect at that time?
   3. Probe: How might this law impact your personal participation in anesthesia care for pregnancy termination?
2. Do you think this law goes too far, just right, or not far enough when it comes to limitations on termination of pregnancy? How so or why not?
3. Besides the 20-week ban, what other national or state laws are in place that you think affect care of pregnant patients?
   1. Probe: How do you feel about laws or policies that affect the care of pregnant women?
4. Does your department or hospital regularly update you on law changes or policy changes?
   1. Probe: Where (else) do you find out about information like this?
5. **Abortion**

Thank you for your responses. Next, I’d like to ask more direct questions about your thoughts and feelings about pregnancy termination. For purposes of our discussion, pregnancy termination will be defined as “when medication is taken or a procedure is done to end a pregnancy.” As a reminder, there are no right or wrong answers. If you do not know or do not wish to answer a question, you may pass.

* 1. If any exists, what is the policy on performing pregnancy terminations at your workplace?
     + 1. Probe: How do you feel about these policies? Do you agree?
  2. Probe: Do you know how that was decided at your institution? Who do you think is involved in making such institutional policy decisions? Who do you think should be making these decisions?
  3. Probe: How might these policies affect patient care?
  4. Probe: If terminations were happening regularly at your institution, how might that change your view of the institution?
  5. How do you think the leadership in your department feels about pregnancy termination?
     + 1. Probe: What have any of them said in or outside of work about abortion?
       2. Probe: How does your department handle termination of pregnancy when it comes up (for any reason)?

* + 1. How do you think your colleagues feel about pregnancy termination?
       1. Probe: What have any of them said in or outside of work about abortion?
       2. Probe: If terminations were to occur at your workplace, how would your colleagues handle case coverage?
    2. What are your personal attitudes or feelings towards pregnancy termination?
  1. Probe: Have you taken care of women terminating a pregnancy? How often or in what context?
  2. Probes: In what circumstances do you think ending a pregnancy might be acceptable?
  3. Probe: If you were scheduled to provide anesthesia for a pregnant woman ending her pregnancy, regardless of the reason, how would you respond?
  4. Probe (for Trainees): if you were assigned a case with your attending/supervisor that you were uncomfortable with, how would you respond? Has this happened to you before? Can you share some details of that experience?
  5. Probe (for Trainees): if your attending/supervisor refused to participate in a case that you were comfortable with, how would you respond? Has this happened to you before? Can you share some details of that experience?

1. **Closing**

Thank you for sharing your stories and personal thoughts. I appreciate your honesty and openness. I have just a few more questions before we end the interview.

1. If there is a patient who is scheduled for termination of pregnancy, what should you know as the patient’s anesthesia provider?
   1. Probe: What details might influence your decision to participate?
   2. Probe: Does gestational age matter (e.g. first trimester, second trimester)?
   3. Probe: Does the patient’s obstetric history matter (e.g. first pregnancy, several kids at home, history of multiple abortions)?
   4. Probe: Does context matter (e.g. delivery of viable pregnancy, emergency surgery of any type)?
2. Who do you think should be involved in decisions to terminate a pregnancy?
   1. Probe: What level of involvement would you as the anesthesia provider want if any?
   2. Probe: What level of involvement should Anesthesiology leadership have if any?
   3. Probe: Do any of your answers depend on any of the factors we’ve previously discussed?
3. What, if anything, would facilitate collegiality between obstetric and anesthesia providers when it comes to patients having terminations?

Thank you again for your time. Is there anything else you want to add that we didn’t get to talk about?

This concludes the interview.

# Appendix 2: 22-Week Ban Supplement

“The General Assembly makes the following findings:

“(1) At least by 20 weeks after fertilization there is substantial evidence that an unborn child has the physical structures necessary to experience pain; (2) There is substantial evidence that, by 20 weeks after fertilization, unborn children seek to evade certain stimuli in a manner which in an infant or an adult would be interpreted as a response to pain; (3) anesthesia is routinely administered to unborn children who have developed 20 weeks or more past fertilization who undergo prenatal surgery; (4) Even before 20 weeks after fertilization, unborn children have been observed to exhibit hormonal stress responses to painful stimuli. Such responses were reduced when pain medication was administered directly to such unborn children; (4.1) Probably gestational age is an estimate made to assume the closest time to which the fertilization of a human ovum occurred and does not purport to be an exact diagnosis of when such fertilization occurred; and {5) It is the purpose of the State of Georgia to assert a compelling state interest in protecting the lives of unborn children from the stage at which substantial medical evidence indicates that they are capable of feeling pain.

…

“No abortion is authorized or shall be performed if the probable gestational age of the unborn child has been determined in accordance with Code Section 31-9B-2 to be 20 weeks or more unless the pregnancy is diagnosed as medically futile, as such term is defined in Code Section 31-9B-1, or in reasonable medical judgment the abortion is necessary to: (A) avert the death of the pregnant woman or avert serious risk of substantial and irreversible physical impairment of a major bodily function of the pregnant woman. No such condition shall be deemed to exist if it is based on a diagnosis of claim of a mental or emotional condition of the pregnant women or that the pregnant woman will purposefully engage in conduct which she intends to result in her death or in substantial and irreversible physical impairment of a major bodily function; or (B) preserve the life of an unborn child.

…

“In any case described in subparagraph (A) or (B) of paragraph (1) of this subsection the physician shall terminate the pregnancy in the manner which, in reasonable medical judgement, provides the best opportunity for the unborn child to survive unless, in reasonable medical judgement, termination of the pregnancy in that manner would pose a greater risk either of death of the pregnant woman or of the substantial and irreversible physical impairment of a major bodily function of the pregnant woman than would another available method. No such greater risk shall be deemed to exist if is based on a diagnosis or claim of a mental or emotional condition of the pregnant woman or that the pregnant women will purposefully engage in conduct which she intends o result in her death or in substantial and irreversible physical impairment of a major bodily function. If the child is capable of sustained life, medical aid when available must be rendered.

…

“Code Section 31-9B-1 …

“**’Medically futile’** means that, in reasonable medical judgment, the unborn child has a profound and irremediable congenital or chromosomal anomaly that is incompatible with sustaining life after birth. … **‘Probable gestational age of the unborn child’** means that what will, in reasonable medical judgment and with reasonable probability, be the postfertilization age of the unborn child at the time the abortion is planned to be performed or induced, as dated from the time of fertilization of the human ovum. … **‘Reasonable medical judgment’** means a medical judgment that would be made by a reasonably prudent physician, knowledgeable about the case and the treatment possibilities with respect to the medical conditions involved.

…

“Code Section 31-9B-3. (a) Any physician who performed or attempts to perform an abortion shall report to the department, in conjunction with the reports required under Code Section 31-9A-6 and in accordance with forms and rules and regulation adopted and promulgated by the department: (1) If a determination of probably gestational age was made, the probable gestational age determined and the method and basis of the determination; (2) if a determination of probable gestational age was not made, the basis of the determination that a medical emergency existed or that a pregnancy was diagnosed as medically futile; (3) if the probable gestational age was determined to be 20 or more weeks, the basis of the determination what the pregnant woman had a medically futile pregnancy or had a condition which so complicated her medical condition as to necessitate the termination of her pregnancy to avert her death or to avert serious risk of substantial and irreversible physical impairment of a major bodily function, or the basis of the determination that it was necessary to preserve the life of an unborn child; and (4) the method used for the abortion and, in the case of an abortion performed when the probable gestational age was determined to be 20 or more weeks, where the method of abortion used was one that, in reasonable medical judgement, provided the best opportunity for the unborn child to survive or, if such a method was not used, the basis of the determination that the pregnancy was medically futile or that termination of the pregnancy in a manner would pose a greater risk either of death of the pregnant woman or of the substantial and irreversible physical impairment of a major bodily function of the pregnant woman than would other available methods.”

# Appendix 3: Verbal Consent Form

**Emory University**

**Oral Consent/Information Sheet**

**For a Research Study**

**Study Title**: **Anesthesia Providers' Perspectives on Abortion Provision: a qualitative study**

**Principal Investigator: Jennifer Reeves, MD**

**Funding Source: Society of Family Planning Research Fund**

Introduction and Study Overview

Thank you for your interest in our Family Planning research study. We would like to tell you everything you need to think about before you decide whether or not to join the study. It is entirely your choice. If you decide to take part, you can change your mind later on and withdraw from the research study.

1. The purpose of this study is to understand the factors that influence anesthesia providers’ participation in complex obstetrical cases, including miscarriage and abortion.
2. The study is funded by the Society of Family Planning Research Fund.
3. This study will take less than 60 minutes to complete.
4. If you join, you will be asked to participate in a one-on-one interview, which will include questions about personal and hypothetical experiences in complex obstetrical and abortion case. All interviews will be audio-recorded for later transcription and analysis.
5. Your participation is voluntary and confidential. Your participation will not affect your employment, and no information will be shared with your employer(s). The risks and/or discomforts of participation to you are minimal, but there is a slight risk of breach of confidentiality.
6. This study is not intended to benefit you directly, but we hope this research will benefit people in the future.
7. Your privacy is very important to us. For the data analysis, we will remove all identifiers, including locations, dates, and names of colleagues and institutions. At the end of the study, we will erase the digital recordings. Our final summary of this research and any future manuscripts will present aggregate information without singling out any individual.
8. Your health information that identifies you is your “protected health information” (PHI). We will not be collecting any of your PHI for this study.
9. This study will collect name, email, or phone number, which may be used after the study to contact you about referring other co-workers who you think might be interested in participating in the study.
10. You will receive a 100$ Visa gift card at the conclusion of your participation for this study

Contact Information

If you have questions about this study, your part in it, your rights as a research participant, or if you have questions, concerns or complaints about the research you may contact the following:

Jennifer Reeves, Principal Investigator: 404-778-1706 or jennifer.reeves2@emory.edu

Carrie Cwiak, Co-investigator: 404-778-1378 or ccwiak@emory.edu

Emory Institutional Review Board: 404-712-0720 or toll-free at 877-503-9797 or by email at [irb@emory.edu](mailto:irb@emory.edu)

Consent

Do you have any questions about anything I just said? Were there any parts that seemed unclear?

Do you agree to take part in the study?

Participant agrees to participate: Yes No

If Yes:

Signature of Person Conducting Informed Consent Discussion Date Time

Name of Person Conducting Informed Consent Discussion

# Appendix 4: APPAP Code Book

|  |  |
| --- | --- |
| **Code** | **Memo** |
| Social Ecological Model | Parent code for different levels of the SEM 1. interpersonal 2. workplace leadership 3. institutional 4. community/cultural 5. policy/legal |
| Social Ecological Model\political/legal | deductive code  Definition: influence of state or national laws or politics on the participant’s participation in or thoughts on abortion.  Includes: discussion of state or national laws, state or national political atmosphere that the participant mentions in connection to abortion; could be positive, negative, or neutral influence; may overlap with other levels of SEM  Excludes: specific discussion of the 20-week ban that is better categorized by those codes  Example: "Um, so I think other than putting in protections for patients, I don't think that this kind of legislation is necessary." - Ellen (APP3) |
| Social Ecological Model\community/cultural | deductive code  Definition: influence of community or culture (e.g. region, religion, ethnicity) on the participant’s participation in or thoughts on abortion.  Includes: any reference regional, religious, or other community opinion on abortion that the participant mentions in connection to abortion; could be positive, negative, or neutral influence; may overlap with other levels of SEM  Excludes: anything better described by other levels of the SEM, like interpersonal, institutional, or political/legal  Example: "Um, essentially, the baby was going, headed towards fetal demise regardless, and the baby was basically septic. At that point, even he, he's from southern Alabama, he said, "Okay, that's fine," so he said, "I'm going to do it."" Chad (APP 2) |
| Social Ecological Model\institutional | deductive codeDefinition: influence of institution (e.g. hospital, practice, surgical center, clinic) on the participant’s participation in or thoughts on abortion.Includes: official or unofficial policies, formal interactions with institution (e.g. Board, Committee), perceived, hearsay, or actual positions of the institution; could be positive, negative, or neutral influence; may overlap with other levels of the SEM.Excludes: anything better explained by other levels of the SEM, like interpersonal, community/cultural, or political/legalExample: "So I am not aware of any policy limiting terminations currently in our system. Um, I think the only disclosure I've had with that is that our department used to provide these services regularly, and now we do not provide them regularly. Not that we do not provide them, but I, I get the sense that this is coming from higher up somewhere but I'm not sure where." -Ellen (APP3) |
| Social Ecological Model\workplace-leadership | deductive code  Definition: influence of immediate authority figures in the participant's workplace (e.g. supervisors, educators, department leadership) on the participant’s participation in or thoughts on abortion.  Includes: actual interactions with or perceived feelings of workplace authority figures (e.g. supervisors, educators, department leadership) that the participant links to abortion; could be positive, negative, or neutral influence; segments may overlap with other levels of the SEM  Excludes: co-workers, trainees, patients, friends, family, or others that better fit other levels of the SEM  Example: "Um, our department chair is, um, an OB anesthesia trained professional, and seems very open to most scenarios. We don't get any messaging, per se, about kind of the ethical or legal consequences of care." -Chad (APP2) |
| Social Ecological Model\interpersonal | deductive codeDefinition: influence of others (e.g. co-workers, learners, patients, colleagues, family, friends) on the participant’s participation in or thoughts on abortion.Includes: actual interactions with or perceived feelings of other individuals (e.g. co-workers, learners, patients, colleagues, family, friends) that the participant links to abortion; could be positive, negative, or neutral influence; may overlap with other levels of the SEMExcludes: supervisors, educators, department leadership (mid-level) or others that better fit other levels of the SEMExample: "If it was just simply Trisomy 21, I would, uh, I would feel some kind of way, but it still would not stop me from doing the surgery, because I mean Down syndrome by itself is compatible with life, you know? I actually have, um, I guess my sister-in-law has Down syndrome, or my girlfriend's sister has Down syndrome and she's 39 years old, you know?" -Chad (APP2) |
| Personal Abortion Attitudes | deductive code  Definition: personal thoughts, attitudes, or perspectives on abortion   Includes: personal reasoning or explanation of viewpoints; acceptance or non-acceptance of indications or features of abortion; can overlap with any other level of the SEM; can overlap with ethical or emotions response codes  Excludes: discussion of higher-order levels of the Social Ecological Model (interpersonal, institutional, community, cultural, political) or extrapolations of insights/rationalization of others  Example: "If it was just simply Trisomy 21, I would, uh, I would feel some kind of way, but it still would not stop me from doing the surgery, because I mean Down syndrome by itself is compatible with life, you know?" -Chad (APP2) |
| Limits on Abortion Provision | inductive codeDefinition: the point at which the participant becomes uncomfortable with or unacceptable of abortionIncludes: any discussion of professional or personal limits; expression of no limitsExcludes: discussion of coworkers/others' limits on abortionExample: "If it was just simply Trisomy 21, I would, uh, I would feel some kind of way, but it still would not stop me from doing the surgery, because I mean Down syndrome by itself is compatible with life, you know?" -Chad (APP2) |
| Role-Responsibility | inductive code  Definition: duty, role, responsibility in any patient care setting  Include: any mention of personal or others' roles or responsibilities in patient care (e.g. anesthesia provider, other provider, patient, institutions, lawmakers). Include abortion and non-abortion settings. Includes technical/medical, interpersonal, ethical/emotional, legal, or others.  Excludes: role or responsibility in other settings (e.g. as a parent, as a private citizen)  Example: "In anesthesia, our biggest, our main thing is we just, we assess risk is all anesthesia is." -Chad (APP2) |
| Deferral of Responsibility | inductive codeDefinition: putting responsibility or decision-making on another party outside the participant re: abortionIncludes: 'not my decision,' 'not my place,' or any reference that another person or persons are more responsible; overlap with role/responsibility codeExcludes: \_Example: Example: "It’s not my job to decide on a moral compass whether I think they’re right or wrong and, you know, in this situation, would I provide the anesthesia for her D&E? Yes, I would. That’s up to the patient to make that decision. Would I treat her any differently to any other patient? No, I wouldn’t." -Babs (APP10) |
| Risk/Safety | deductive code  Definition: reference to any risk, hazard, danger, or similar of medical, legal, or other aspect of patient care, including abortion OR any reference to safety, prevention of danger in patient care  Includes: discussion of safety profile, risk recognition, safety/risk assessment, and/or management in a medical, legal, or other aspect re: patient care  Excludes: personal ethical opinion or standard  Example: "In anesthesia, our biggest, our main thing is we just, we assess risk is all anesthesia is." -Chad (APP2) |
| Emotions | inductive codeDefinition: any emotion expressed by the participant in reaction to any case or scenario of the interviewIncludes: sadness, shock, reaction, pause, hesitation, need to process, no change in reaction, no emotional affect change, or othersExcludes: absence of emotional response (i.e. the participant responses in a non-emotional way)Example: "I mean you see people on all parts of the spectrum and how emotionally taxing that is, and I think you have to treat the patients who elect to, uh, terminate in the exact same way that you treat the patients who did not elect to have, um, their pregnancy terminated, because I think it will be, it's equally distressing." -Ellen (APP3) |
| Morals | inductive code  Definition: mention of morality or immorality in the setting of patient care, especially abortion  Includes: morals, discussions of inherent "good" or "evil" of a topic, may include discussions or justifications that an issue isn't a moral issue; may overlap with any other code (e.g. emotion, ethics)  Excludes: the 'absence' of morality (i.e. the participant doesn't not bring up morality in a segment that others have deemed a moral issue)  Quote: "I think it's overreaching, um, in terms of the, one, the, um, the definitions it provides for the, you know, or the standards it's forcing providers to, um, to endure, and also the consequences it's placing on providers, as well, for not doing so, especially if they feel morally or ethically against providing said care." -Chad (APP2) |
| Religion | inductive codeDefinition: discussion of religion or spirituality in the context of explanation of abortionIncludes: any religious or spiritual belief, mention of religious texts or authorities; may overlap with ethics, emotions, or other codesExcludes: absence of religion (i.e. participant doesn't mention religiosity in situations that others have)Example: "I think from conception it's a child. That's Biblical. I have a lot of those Biblical roots. But in the Bible it even says, "I knew you from the womb." That, to me – or even before. It's something beautiful. It changes your life whichever way you choose to go." -Betty (APP 11) |
| Ethics | inductive code  Definition: any explanation of or reference to ethics (or none) expressed by the participant in reaction to any case or scenario of the interview re: abortion  Includes: ethical principles of beneficence, non-maleficence, autonomy, justice; includes explanations of abortion as a non-ethical issue.  Excludes: 'absence' of ethics (i.e. the participant does not bring up ethical issue that others might seem ethical.  Example: "I think it's overreaching, um, in terms of the, one, the, um, the definitions it provides for the, you know, or the standards it's forcing providers to, um, to endure, and also the consequences it's placing on providers, as well, for not doing so, especially if they feel morally or ethically against providing said care." -Chad (APP2) |
| Gender Roles | inductive codeDefinition: a gendered response or deferral to gender roles in response to the interviewIncludes: discussions of parenthood, 'typical' gender response as defined by the participantExcludes: absence of gender discussion (i.e. the participant does not bring up gender as an influencing force)Example: "I didn't expect that [my son would be affected by the miscarriage]. I don't know why I didn't. I just always thought of it as a female experience, I guess. But it really did." -Betty (APP 11) |
| Communication | inductive code  Definition: mention of communication with coworkers, patients, administration, colleagues, or others in a professional setting  Includes: phone calls, personal conversations, notes, or any form of interaction with others external to the participant; may be actual or hypothetical; may also include non-communication, assumptions, or tacit communication between parties (e.g. assumptions of patient feelings)  Excludes: internal monologue or communication with others outside of a work setting (code as interpersonal instead)  Example: "I mean, uh, there's an assumption, I think, at least from the anesthesia side, that the OBs have discussed in detail, um, the medical implications for the mother, medical implications for the fetus." -Ellen (APP3) |
| Advice-Recommendations | deductive codeDefinition: participant's answer to concluding questions about advice to anesthesia providers, recommendations for OB/Anesthesia collaborationIncludes: any comments on how to facilitate care, address abortion in hospital setting, future directionsExcludes: topics not related to abortion or OB/Anesthesia careExample: "...Um, but maybe a yearly interdepartmental, um, update, whether that's as a, um, as a conference, kind of education meeting where, especially providers that are beyond at least an academic or residency training situation..." -Ellen (APP3) |
| Cases | Parent Code to mark Case Discussions and allow easier comparative analysis |
| Cases\Case1 | deductive code Each participant's responses to Case 1 Use for comparative analysis |
| Cases\Case2 | deductive code Each participant's responses to Case 2 Use for comparative analysis |
| Cases\Case3 | deductive Each participant's responses to Case 3 Use for comparative analysis |
| 20-week Ban | Marking 20-week ban discussion for comparative analysis |
| 20-week Ban\pre-existing knowledge | deductive sub-code of 20-week ban parent codeDefinition: participant's response to initial mention of the 20-week ban in GeorgiaIncludes: any response to the question, factual or notExcludes: responses after hearing or heading the law summaryExample: "Uh, the 20-week ban, you cannot do any, uh, abortions after 20 weeks. Is that what it is, or ‒ " -Chad (APP2) |
| 20-week Ban\initial reaction | deductive sub-code for 20-week ban parent code  Definition: what participants detail as their initial reaction or understanding of the law  Include: first response after reading/hearing the summary; positive, negative, or indifferent  Exclude: discussion of other features of the law outside the first reaction  Example: "Pretty much it's, if someone wants to have an abortion over 22 weeks, if they don't have any serious risks to, uh, maternal health, then you could be imprisoned." -Chad (APP2) |
| 20-week Ban\Salient Features | subcode of 20-week ban discussion deductive code  Definition: any feature of the 20-week ban that participants bring up as important, striking, interesting, etc.  Includes: distinct feature of the 20-week ban brought up by participants  Excludes: discussion of other laws, policies  Example: "‒ it's the criminal aspect, and that's where it's going to be a big deterrent, because it's, nobody wants to go to jail just for doing their job..." -Chad (APP2) |
| 20-week Ban\Affecting Practice | deductive sub-code within 20-week ban discussionDefinition: patient's discussion of how the law affects or doesn't affect obstetric and anesthesia practiceIncludes: positive, negative, or neutral responses about how the law may or may not change practiceExcludes: other laws or policiesExample: "Um, so I certainly think that the impact on obstetric care will be a, would have to be a push towards much earlier identification of cases that could presumably be an exception." -Ellen (APP3) |
| 20-week Ban\Assessment of Law | sub-code to 20-week ban discussion deductive code  Definition: direct answer to the question "in your opinion, does this law go too far, just right, or not far enough in limiting termination of pregnancy."  Includes: answer and justification for answer, could include other general assessments of the law (e.g. concluding thoughts)  Excludes: discussion of other laws or politics  Example: "I think it's overreaching, um, in terms of the, one, the, um, the definitions it provides for the, you know, or the standards it's forcing providers to, um, to endure." -Ellen (APP3) |
| Quotable Quote | Use to mark particularly insightful, impactful, or just overall "good" quotations. |
| Assumption | inductive codeDefinition: when the participant states something they assume to be true (that is not exactly true) about OB or abortion care. Includes: assumptions, myths, false beliefs, conclusions drawn that are untrueExcludes: assumptions in communication (e.g. "I assumed OB would take care of it")Example: "Well, the thing is, at 20 weeks, the baby's neurosystem – they demonstrated they can feel pain." -Gary (APP 8) |

1. All names are pseudonyms that were assigned by the author or provided by the participant themselves [↑](#footnote-ref-1)
2. pseudonym [↑](#footnote-ref-2)
3. pseudonym [↑](#footnote-ref-3)
4. pseudonym [↑](#footnote-ref-4)
5. pseudonym [↑](#footnote-ref-5)
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12. pseudonym [↑](#footnote-ref-12)