Commentary

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Reflections on abortion rights: From policy to medicine

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SUMMARY On June 24, 2022, the US Supreme Court overturned Roe v. Wade, which marked a further restriction on women's abortion rights in the US. It has sparked a wide range of societal reactions around the world. Women in different countries enjoy diverse abortion rights due to conditions in their respective nations and cultures. Abortion protects women's rights to a certain extent, and especially in the event of unintended pregnancy. An inappropriate abortion ban will affect women's health and lives and all aspects of medicine, including the lives of doctors, patient access, and the development of medical technology. This review provides a gynecologist's perspective on the impact of abortion policies on women's health and the medical system. This review also attempts to determine the reason for the government's abortion ban.

Keywords abortion right, women, policy, risks and benefits, medical system

Abortion is a longstanding controversy regarding its moral, legal, medical, economic, and religious aspects. Between 2015 and 2019, there were approximately 121 million unintended pregnancies and 73 million abortions worldwide (*1*). A study conducted in 14 countries, including low-, middle-, and high-income countries, estimated that the most frequent reasons for an abortion were socioeconomic concerns or limiting childbearing (*2*). In order to call for the legalization of abortion, the United Nations (UN) has designated September 28 as International Safe Abortion Day to support women's fundamental rights to a safe abortion (*3*). However, as the fertility rate declines and the population rapidly ages, the debate over abortion has resurfaced. Whether abortion rights are a human right is worth considering. What will happen if those rights are restricted? The current review summarizes the abortion policies in the US, Europe, Japan, and China and it discusses the impact of these policies on individuals, doctors, and the medical system.

1. Abortion law and policies in different countries

▪ *US* Abortion rights have long been controversial in the US. About half a century ago, most states had strict restrictions on abortion rights until Roe v. Wade in 1973. A woman's right to an abortion began to be protected by the Constitution after Roe v. Wade. On June 24, 2022, the US Supreme Court overturned this case. Subsequently, several states immediately changed their laws on abortion. As of July 16, 44 states have banned abortions unless the mother's life is in danger or in other extreme circumstances (*4*) (Table 1). Healthcare providers are allowed to refuse to provide abortion services in 46 states (*5*).

▪ *Europe* Compared to the US, abortion policies in Europe are more liberal (*6*). Abortion is usually legal to protect the health of a pregnant woman. Some countries require women to undergo mandatory counseling. Abortion is not allowed only in 6 European countries. Andorra, Malta, and San Marino have a total abortion ban. Liechtenstein, Monaco, and Poland allow abortion when a woman's life or health is at risk or the pregnancy results from sexual assault. Moreover, abortion is permitted in Monaco and Poland when the pregnancy involves a severe fetal anomaly.

▪ *Japan* In Japan, an abortion is permitted within 22 weeks if a pregnancy is caused by violence, coercion, or rape, or if continuing pregnancy or childbirth will result in health risks or financial hardship under the current Maternal Protection Act (*7*). Methods of abortion, including emerging abortifacients, require spousal consent. Abortifacients were legalized in December 2021

Table 1. Restrictions on abortion in the US

Gestational limits
When the mother's life is in danger
Any time: Alabama, Arkansas, Missouri, Oklahoma, South Dakota, Texas
After 6 weeks: Ohio, Tennessee
After 15 weeks: –
After 22 weeks: Indiana, Iowa, Kansas, Kentucky, Nebraska, North Dakota, West Virginia, Wisconsin
After 24 weeks: Pennsylvania
Viability*: Michigan, Idaho, Montana, North Carolina, Wyoming
Third trimester: –
Physical and general health reasons
Any time: –
After 6 weeks: –
After 15 weeks: –
After 22 weeks: –
After 24 weeks: Massachusetts
Viability*: Arizona, California, Connecticut, Delaware, Hawaii, Illinois, Maine, Maryland, Minnesota, New York, Rhode Island, Washington
Third trimester: Virginia
Cases of rape, incest, or fetal abnormalities
Any time: Louisiana, Mississippi
After 6 weeks: South Carolina
After 15 weeks: Florida
After 22 weeks: Georgia
After 24 weeks: Massachusetts
Viability*: Delaware, Maryland, Utah
Third trimester: –

No restrictions:
Alaska, Colorado, Nevada, New Hampshire, New Jersey, New Mexico, Oregon, Vermont

*Viability: The point at which a fetus is capable of surviving outside the uterus, usually between 24 and 28 weeks.

and will be approved as early as December 2022 (*8*).

▪ *China* Abortion is legal in most regions of China but prohibited for gender selection. The Law of the People's Republic of China on the Protection of Women's Rights and Interests states that women have the freedom to choose to have a child or not (*9*). Most regions restrict abortion only after 28 weeks' gestation unless fetal malformations or the mother's safety are involved. To balance the sex ratio, some provinces have banned abortion after 14 weeks' gestation when a child's gender can be predicted *via* ultrasound (*10*).

2. The effects of abortion on patients

2.1. Methods of abortion and risks involved

The methods of abortion that are current available internationally include medical and surgical abortion. Misoprostol and mifepristone were used for medical abortion during the first trimester of pregnancy with an efficiency of 96.7%. The combination of these two drugs is recommended by the World Health Organization (WHO) for safe abortion care, and they are on the WHO's List of Essential Medicines (*11*). Medical abortion partly protects the patient's privacy and avoids invasive surgery. Surgical abortions include uterine aspiration and dilation and evacuation (D&E). Uterine aspiration is used primarily in the first 14 weeks of gestation, while D&E is used for gestational ages between 14 and 24 weeks. Compared to medical abortions, surgery takes less time and is less painful because anesthesia is used (*12*).

2.2. Effects on women's health

Abortion has harmful and beneficial effects on women's lives. Medical abortion can cause prolonged bleeding and cramping, and especially without a doctor's prescription; adverse drug reactions will occur, such as nausea, vomiting, diarrhea, headache, dizziness, fever, hot flashes, and chills (*13*). Surgical abortion can cause *i)* bleeding, *ii)* uterine perforation, *iii)* cervical trauma, *iv*) additional procedures due to insufficient aspiration, *v)* infertility, and *vi)* other symptoms including vasovagal syncope, asthma exacerbation, and disseminated intravascular coagulation. Either medical or surgical abortion may cause infection, retained products of conception, failed abortion, and continuing pregnancy (*14*). Women who underwent abortions are more likely to experience unsuccessful pregnancies or miscarriages than those who gave birth (*15*). A strict abortion policy may increase the cases of unsafe abortion, such as abortifacient abuse and risky intentional miscarriages, which increase the risk of gynecological diseases and harm women's health and lives. Besides physical health, women's mental health can also be significantly impacted by abortion. The risk of mental disorders is 81% higher for a woman who has undergone an abortion than one who has not, and nearly 10% of mental illnesses can be attributed to abortion (*16*). Abortion also increases the risk of a mental disorder recurring (*17*).

However, abortion protects women against a series of subsequent problems caused by unintended pregnancies. *i)* In the case of sexual assault or incest, abortion can reduce the harm to women, allowing them to continue their studies and lives. *ii)* Abortion procedures can be used to treat and prevent serious conditions, such as fetal death or incomplete abortion. *iii)* Abortion can prevent sexual dysfunction, a hormonal imbalance, or a distorted body shape after pregnancy (*18*). In addition, abortion can protect women and their families from the financial and mental stress of additional childbirth and childcare, improving their quality of life. Therefore, the right to a safe voluntary abortion is reasonable and essential for women.

2.3. The patients' decision

The enactment of abortion bans puts patients at risk. Due to severe legal restrictions and tight economic conditions, many women choose low-cost but unsafe abortions, such as self-induced abortions, clinics with poor hygiene, or even untrained personnel using dangerous methods. A study found that between 2010 and 2014, 25 million unsafe abortions were performed each year globally, accounting for 45% of all abortions (*19*). Most of those abortions occur in low- and middle-income countries due to more restrictive policies and

socioeconomic factors. Abortion restrictions further limit insurance coverage. Currently, 16 states cover all or most medically necessary abortions with Medicaid. In 33 states and the District of Columbia, however, state funds are unavailable unless a pregnancy is life-threatening or results from rape or incest (*20*). Patients' decisions will undoubtedly be influenced by financial concerns. Therefore, the WHO recommends that countries devise policies and financial commitments that support access to safe, legal abortions.

3. The impact of abortion bans on the medical system

3.1. The medical system

The imposition of abortion restrictions will affect the medical system in all aspects. In the aftermath of the overturning of Roe v. Wade, the number of abortion clinics and doctors has decreased in many US states, limiting patient access. To obtain an abortion or medical care, they must travel to other states where abortion is allowed. In addition, emergency abortions will not be possible in life-threatening circumstances due to a lack of doctors in some communities. Since the restriction on abortion, doctors have acted more cautiously given local legalization. For example, mifepristone, used to prevent miscarriages, is banned in abortion clinics in Alabama. This means that women experiencing incomplete abortions cannot receive timely treatment until their life is in danger. This ban also limits the development of medical technology because of its chilling effect. The live birth rate from in vitro fertilization is less than 30%, and abortion is the most common outcome (*21*).

3.2. The doctor's dilemma

Doctors have been significantly affected by abortion restrictions. Abortion providers experienced a considerable rise in stalking (600%), blockades (450%), hoax devices/suspicious packages (163%), attacks (129%), and assaults and battery (128%) in 2021, which may be exacerbated by the overturning of Roe v. Wade (*22*). The rate of resignation among abortion doctors has risen due to excessive legal burdens or declining patient numbers and salaries. Doctors who continue to perform abortions are forced to find a new approach, such as traveling across state lines to perform abortions or providing counseling or medication to patients *via* telemedicine. Most doctors who only perform abortions have relocated to states where abortion is legal (*23*).

4. From policy to action by the medical system: What's the impetus?

Medicine and policy have different origins and goals but they can affect each other to some degree. For a long time, harming life was considered illegal under the tenets of Christianity, even if a baby was involved. In the Middle Ages, English common law declared abortions a criminal offense after the "quickening," the moment that implied the presence of a human soul (*24*). Over time, the heartbeat theory and the conception theory have gradually emerged with advances in science and people's knowledge of the origin of life. Policies have increasingly rested primarily on modern scientific or technological evidence rather than moral authority or religion. Generally, medical policies are supposed to improve care by regulating and supporting medical technologies. Social issues, however, may require some adjustments for social stability or other reasons, even if they seem unreasonable. For example, during the COVID-19 pandemic, most countries in Europe recognized the shortcomings of current policies on abortion and care and made timely policy adjustments. Some countries, like France and England, utilized telemedicine instead of face-to-face visits. Northern Ireland introduced early medical abortion for the first time during the pandemic (*25*). Another example is China, the world's most populous country, which implemented a family planning policy in 1981 to control rapid population growth. As the population ages and birth rates decline, this restriction has been relaxed, along with an announcement to reduce "non-essential abortions" in 2021 (*26*). Thus, the right to abortion depends on public demand for a transition from policy to action by the medical system. The abortion ban may seem counterintuitive but reasonable based on the above factors, and we should remain objective.

5. Conclusion

In short, the issue of abortion is a longstanding topic that emerged with the emancipation of women. For women, abortion is a mixed blessing. Despite repeated calls from the United Nations and the WHO to legalize abortion, it differs across countries and regions today. Policymakers need to think holistically. A one-size-fits-all policy could lead to a severe blow to abortionists and related medical issues. Therefore, abortion policies should be carefully adjusted.

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