# IVF and the Anti-Abortion Movement: Considerations for Advocacy Against Overturning Roe v. Wade

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Abstract: As the anti-abortion movement gains ground in the United States, it is important to explore the potential impact of overturning Roe v. Wade (1973) on the practice of IVF (in vitro fertilization). If the United States Supreme Court abandoned the legal right to early pregnancy terminations, it would open the door for states to enforce laws defining life to begin at conception. In all likelihood, legally establishing life to begin at conception may make IVF far less likely to be successful, significantly more expensive, more likely to result in high risk pregnancies with multiples, and more medically invasive. As the prevalence of IVF grows, this is a practice that should no longer be ignored in the political discourse on abortion. Instead, the unintended consequences of life at conception bills on the cost, availability, safety, and success rates of IVF can provide a strong argument in the toolbox of strategies for social workers lobbying against anti-abortion legislation.

Keywords: In vitro fertilization (IVF), policy advocacy, abortion, Roe v. Wade, life at conception laws

The 2018 NASW policy statements specifically call on social workers to oppose the repeal of Roe v. Wade (1973). As the United States swings toward a more conservative Supreme Court with a President who has committed to appointing Justices willing to overturn the case, social work advocates need to be armed with as many arguments against anti-abortion legislation as possible. Roe v. Wade (1973) is the United States Supreme Court case which stands as precedent for a privacy right that includes the ability to terminate early pregnancies. In order to prepare social workers for the impending challenges to abortion, a brief history of abortion regulations will be provided. The history requires an explanation of the right to privacy, which birthed the right to abortion in a very precarious manner. Attention will then turn to the process of in vitro fertilization (IVF), and the potential impact of overturning Roe v. Wade (1973) on the practice of IVF. If American law were to evolve to legally define life as beginning at conception, it is unclear whether the practice of IVF would be outlawed due to conceiving embryos in a petri dish with no guarantee that they will ever be placed in a human body to continue their growth. It is possible IVF could be banned, but more likely that the procedure would instead become far more expensive, more medically invasive for patients, less likely to be successful, and more unsafe for mother and child with an increased risk of multiples. The serious potential negative consequences to IVF practice are rarely contemplated in the current public discourse surrounding abortion. However, demonstrating the potential unintended and negative consequences, primarily related to the increased inaccessibility and decreased success rates, can be another tool in social work advocates' battle against the onslaught of new abortion regulations.

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# **Brief History of Abortion**

Although historical literature documents that abortion has been practiced during all of recorded history, the legality of purposely terminating pregnancies has varied greatly throughout human history. In Classical Greece, abortion was legal as long as the father was informed (Costa, 1996). Some of the earliest writings about controlling pregnancies can be traced to philosopher Plato. He was a proponent of state involvement in mating practices that today would be coined a eugenics program. As part of his suggestions for improving the rate of healthy births, he stated that women who became pregnant over the age of 40 should be required to have an abortion (Costa, 1996). Plato's student, Aristotle, furthered his ideas by proposing that the state should regulate how many children a married couple may bear, and that abortion be compelled after the maximum number of children had been reached. Aristotle hypothesized that a fetus had a vegetable soul that evolved from animal to human soul over the course of a pregnancy; thus, he did not feel early abortions were ethically problematic (Costa, 1996). Yet even in early times, views on abortion differed within cultures (Carrick, 1995). Hippocrates felt abortion was immoral, leading him to incorporate a clause against abortion in his medical oath (Costa, 1996).

Abortion continued to be a source of controversy into modern times. When the United States was founded, abortion before quickening, or noticeable movement of the fetus, was generally unregulated in most areas (Engelman, 2011) and was often performed by laypersons or midwives. However, the American Medical Association (AMA) was founded in 1847 with a strong agenda of gaining more control over the medical field for professionally trained doctors (Costa, 1996). By 1859, the AMA passed a resolution "condemning induced abortion, including those performed before quickening, and urging state legislatures to pass laws forbidding it" (Costa, 1996, p. 7). Many argue this stance, although publicly based on the rights of fetuses and a fear of declining birth rates among white Protestants, was premised on reducing the legitimacy of midwives and others practicing medicine without a physician's license (Costa, 1996; Nossiff, 2001). In 1873, the U.S. Congress passed a Comstock Law that outlawed sending information about how to obtain or perform an abortion through federal mail (Engelman, 2011). By 1900, antiabortion legislation had been passed in nearly every state and territory (Nossiff, 2001).

Despite the illegality of abortion during nearly the first three-quarters of the Twentieth Century, abortions continued to be performed by physicians and non-physicians, often in an unsafe and unsterile manner (Ferree, Gamson, Gerhards, & Rucht, 2002). As the Women's Movement grew stronger through the 1960s, so did the public outcry for abortion rights (Engelman, 2011). Several catalysts for change culminated in 1969 with Planned Parenthood coming "out in support of abortion rights, reversing its long-standing position against abortion" (Costa, 1996, p. 18), the establishment of the National Association for the Repeal of Abortion Laws (NARAL; Ferree et al., 2002), identification of the woman who would serve as the plaintiff known as "Jane Roe" (Costa, 1996), and the start of the illegal abortion collective called Jane (Ferree et al., 2002). Developing through an underground network at the University of Chicago, Jane counseled, referred, and eventually performed abortions. It is estimated Jane performed over 11,000 abortions during its four years of existence (Costa, 1996).

# **Development of the Right to Privacy**

Once a plaintiff had been identified for the courtroom battle to legalize abortion nationwide, public attention to the issue rose as her case made its way through the lower courts toward the Supreme Court, where it was ultimately decided in 1973 (*Roe v. Wade*). Between 1965 and 1972, a few states had begun to loosen their abortion laws. Thirteen altered their laws to allow abortion in certain circumstances, such as rape, incest, or health of the mother (Nossiff, 2001). Importantly, four states permitted abortions for residents (Nossiff, 2001), including New York where abortions for non-residents were also allowable (Ferree et al., 2002). As the state laws began to cause chaos with persons traveling to states where abortion was more permissible and as public focus on abortion heightened, the Supreme Court agreed to hear the *Roe v. Wade* case in order to establish a common framework for state laws. In 1973, the Supreme Court penned the landmark decision *Roe v. Wade*, which placed abortion among the protected privacy rights in the Due Process Clause of the 14th Amendment.

Many advocates overestimate *Roe*'s solidity within Constitutional precedent. The right to privacy is not formally granted by the U.S. Constitution. Instead, it was first explicitly stated by the Supreme Court in the majority opinion of Griswold v. Connecticut (1965), a case challenging the Constitutionality of a Connecticut Comstock law that banned birth control in virtually all forms. In a complex legal analysis, the Court asserted that each individual right in the Bill of Rights works in concert to form a penumbra of rights that constitute a privacy right (Griswold v. Connecticut, 1965). In the Griswold case, the Supreme Court granted the right to use birth control only to married couples. The right was later extended to non-married couples in 1972 (Eisenstadt v. Baird). Next, the Supreme Court extended the privacy right to include early pregnancy abortions in Roe v. Wade (1973). Later, in 2003, the Supreme Court utilized the privacy right to strike down sodomy laws being used to prosecute homosexual men, arguing again that the right to privacy extends into the bedroom (Lawrence v. Texas). Although the privacy right has been used as precedent in several cases, the fact that privacy is not an explicit right in the Constitution leaves it on precarious ground and vulnerable to solid legal arguments for overturning Roe v. Wade.

Roe v. Wade stood as a block on state laws regulating abortion in the first trimester for almost two decades, but in 1992, the Supreme Court began a loosening of Roe that increased state authority to regulate abortion in Planned Parenthood v. Casey. Casey (1992) altered the Roe precedent by scrapping the trimester system for determining when abortion can be regulated and replacing it with the holding that states can regulate abortion for the safety of the mother or fetus prior to fetal viability (including viability achieved by medical intervention, which is pushing viability ever earlier in pregnancy), as long as it does not place an undue burden upon the mother's right to an abortion. The case clearly begs the question of "what is an undue burden?" The Casey case explored four examples of regulations in a Pennsylvania law. The Supreme Court decided three of the regulations were not undue burdens: requiring doctors provide patients with informed consent, requiring women to wait 24 hours to receive the abortion after receiving informed consent, and requiring minors to inform their parents or seek a judge's permission for the abortion. However, the Court did declare requiring women to inform their husbands prior to an

abortion to be an undue burden, primarily because the situation might induce domestic violence (*Planned Parenthood v. Casey*, 1992).

Since Casey's establishment of an undue burden standard, states have added ever more abortion regulations (Phillips, 2016). The majority of regulations challenged at the Supreme Court have been upheld, until 2016, when the Supreme Court decided Whole Woman's Health v. Hellerstedt. The case challenged a Texas law that required abortion providers to have admitting privileges at a hospital within 30 miles and abortion clinics to upgrade their facilities to those legally required of surgical centers. The Supreme Court called both restrictions undue burdens due to the cost associated with compliance. The Court reasoned that the regulations were clearly about limiting abortion access as they forced many clinics to close due to the expense. The Court balanced the State's right to protect health against a woman's right to an abortion, and concluded the restrictions did little to promote health and had a devastating effect on the number of abortion providers in Texas; hence, the regulations posed an undue burden (Whole Woman's Health v. Hellerstedt, 2016).

# **Recent Limitations on Abortion Rights**

Although abortion has stood as a fundamental right for nearly 50 years, it is currently resting on precarious ground. The number of regulations introduced and passed in state legislatures has been on the rise over the past few years. Nearly a quarter of all abortion regulations passed since 1973 have been enacted since 2011 (Phillips, 2016). In 2016 alone, 14 states passed 30 laws that made it more difficult for women to obtain abortions (Phillips, 2016). Additionally, many more laws were considered by state legislatures. As of September 15, 2019, 22 states had introduced 62 bills aimed at either completely banning, or banning with limited exceptions, all abortions (Guttmacher Institute, 2019). Of the 11 enacted laws, four will only go into effect should *Roe* be overturned (Guttmacher Institute, 2019). Additionally, laws banning abortion once a fetal heartbeat has been detected are temporarily blocked due to pending litigation in Kentucky, Louisiana, Mississippi, Ohio, and Missouri (Guttmacher Institute, 2019). Similarly, the American Civil Liberties Union (ACLU) has already filed court cases challenging abortion bans recently signed into law in Alabama and Georgia (ACLU of Alabama, 2019; ACLU of Georgia, 2019).

Bills completely outlawing abortion are clearly unconstitutional under current case law, which explains why it is still legal in all 50 states despite legislative attempts to ban abortion (ACLU of Alabama, 2019; ACLU of Georgia, 2019). Still, the anti-abortion movement has been gaining ground in limiting access to abortions. Often the discourse surrounding the complete ban of abortion typically includes language defining life to begin at conception. Such language is present in recently passed states laws that immediately go into effect should *Roe* be overturned. For example, the Arkansas Human Life Protection Act (2019) defines abortion as an act terminating the pregnancy of a woman and causing the death of an unborn child. The Act goes on to define an unborn child as an individual human organism from fertilization up through live birth. However, since the Act fails to explicitly define pregnancy, there is potential room for interpretation regarding whether the fertilization and embryonic development must occur within the body.

The 2016 presidential election was significant for the movement with the election of a president who purports to be supportive of limiting abortion and a majority Republican Congress. Beyond the President's words, he has already shown commitment to appointing Supreme Court justices who are open to overturning *Roe v. Wade* with the appointments of Neil Gorsuch and Brett Kavanaugh (Center for Reproductive Rights, 2018; Taylor, 2017). In anticipation of a Supreme Court willing to hear a case on the sanctity of life, Craddock (2017) argues that states not be given leeway to regulate abortion. Instead, he uses an originalist theory of constitutional interpretation to argue that the Equal Protection Clause of the 14th Amendment applies to all persons regardless of birth status. He further argues, "certainly the Framers of the Amendment did not promote an understanding of 'legal personhood' separate from biological humanity" (Craddock, 2017, p. 561). If more originalists are appointed to the Supreme Court as the current President has vowed, it is likely the right to abortion will be under serious threat.

As of the time of writing, the 11th Circuit Court of Appeals has set the stage for overturning *Roe v. Wade* by issuing an opinion highly critical of the right to privacy. In the opening paragraph of the opinion, Chief Justice Ed Carnes calls abortion law an "aberration of constitutional law" and goes on to accuse the *Roe* Court of discovering the right to privacy (*West Alabama Women's Center v. Williamson*, 2018, p. 2). The opinion strikes down Alabama's ban on dilation and evacuation (D & E) abortions based on the reasoning that Supreme Court precedent must be followed by lower courts; however, the language demonstrates strong distaste for the procedure by often referring to the procedure as *dismemberment abortion* because, as the Court holds, "That name is more accurate because the method involves tearing apart and extracting piece-by-piece from the uterus what was until then a living unborn child" (*West Alabama Women's Center v. Williamson*, 2018, p. 3). The opinion's language essentially begs for the ruling to be overturned by the Supreme Court on appeal.

### The Process of IVF and Related Ethical Dilemmas

As with most potential legislation, there are unintended consequences ignored in the debate over abortion. If life is defined as beginning with conception, what will become of the growing field of Assisted Reproductive Technologies (ART)? The United States Center for Disease Control and Prevention (CDC; 2017) estimates 6% of married couples experience infertility each year, and this has prompted the CDC to classify infertility as an emerging public health concern. While many people may not talk about their experiences with ART due to stigma and emotional distress, the use of ART, and in vitro fertilization (IVF) more specifically, has been growing (CDC, 2017).

In 1978, five years after *Roe v. Wade* (1973) legalized abortion across the United States, the first baby was born via IVF in England. Her name is Louise Brown but she has historically been referred to as the "first test tube baby," a name that sparks controversy for those concerned about scientific interference in reproductive matters (Baron & Bazzell, 2014). IVF has continued to become more common since its development. The prevalence of IVF in the United States doubled between 2000 and 2010 (CDC, 2011), and the CDC (2017) estimates that approximately 1.6% of all babies born in the United States in 2015 were products of IVF.

Irrespective of legislative changes, IVF is already a time-consuming, expensive, and medically-invasive process. Typical medical protocols require the woman developing the eggs to take a course of oral and injection medications several times a day for a few weeks to encourage the body to create more than the single egg typically matured during a single menstrual cycle (O'Brien, 2010). The eggs are then retrieved prior to ovulation in a procedure generally requiring light anesthesia. Next, the eggs are fertilized with sperm in a laboratory and allowed to grow for 3-6 days before being transferred to a uterus (O'Brien, 2010). The newly pregnant person is required to again undergo a few months of medications, some oral and some injection (O'Brien, 2010). Each of these IVF cycles costs on average \$8,000 for the medical procedures, in addition to \$3,000-\$5,000 for the required medications (Johnston & Gusmano, 2013). Despite the time-consuming, expensive, and invasive nature of IVF, the success rate per IVF cycle in the United States for those using their own eggs is currently 42.4% (CDC, 2019).

Very unlike natural reproduction in which embryos are created within the human body, embryos developed through IVF procedures result from egg and sperm being retrieved from the body and combined in a petri dish. A unique, but extremely important legal dilemma resides here for IVF professionals and patients. If life is defined as beginning at conception, do embryos created in a petri dish have rights? These embryos will fail to thrive if not purposefully placed in a human, female body within approximately seven days (Shahbazi et al., 2016). Do they have a right to be transferred to a human uterus? If so, keeping in mind that eggs may have been donated to a potential mother, to whose uterus do they hold rights?

A further dilemma arises from the common practice of freezing unused embryos after a fresh IVF cycle. Originally, typical IVF practice was to transfer all embryos that were created each cycle to a uterus; however, this sometimes resulted in high order pregnancies, which can be dangerous for mother and babies (Mastenbroek et al., 2011). Patients were loath to "waste" created embryos after the effort and cost of the process, thus, in the mid-1980s, cryopreservation technology was applied to IVF practices (Murphy, 2013). Cryopreservation allowed for the desired number of embryos to be transferred in a given cycle, accounting for the patient's age to improve likelihood of success, but decreased the risk of a multiples pregnancy (Murphy, 2013). Unused embryos are frozen for future use if the cycle is unsuccessful or for a time when more children are desired (Mastenbroek et al., 2011). However, many circumstances can change after embryos are frozen: a couple may divorce, one or both partners may die, or a couple may have completed their desired family size and have no use for the frozen embryos (Boys & Walsh, 2017). An estimated 600,000 embryos are currently being stored in cryopreservation banks in the United States, and this number is certain to climb as the prevalence of IVF continues to grow (Crockin & Debele, 2014; Tucker, 2014; U.S. Department of Health and Human Services (HHS), 2017). Up to 25% of embryos are abandoned as "parents stop paying the storage fee, they move away, or they divorce and forget about their frozen embryos" (O'Brien, 2010, p. 172). Do these embryos have rights if life began when their sperm and egg met? How would the United States handle the embryos under these potential "life at conception" laws?

# The Possible Impact of Life at Conception Bills on IVF

What will become of IVF if Roe v. Wade is overturned, opening the doors for states to enforce and pass additional laws defining life as beginning at conception? Some editorials have been published with the alarming message that IVF could be banned in the United States. Opponents of Mississippi's proposed Initiative 26, to define life as beginning at fertilization, cited concerns of halting IVF should the state constitutional amendment have passed (Seelye, 2011). Beyond outlawing abortions and certain forms of birth control, Initiative 26 would have banned the disposal of fertilized eggs (Eckholm, 2011). Reaching beyond that of state and federal legislation, Paulk (2014) concludes that if embryos were granted personhood, then IVF procedures would significantly challenge international human rights laws. Either by way of the disposal of unused embryos being equivalent to murder or their freezing being seen as cryogenics, IVF could violate existing human rights treaties (Paulk, 2014). Given the decreasing viability of frozen embryos, Browne and Hynes (1990) argue indefinite freezing ultimately destroys the embryo and therefore is equivalent to disposal. Echoing the above, Davis (2014) questions the continued legality of IVF and infers, "Logically, if an embryo is considered a legal person, the destruction of the embryo in any manner is tantamount to murder" (p. 316).

The consequences of life at conception laws in the United States is purely speculative at this time. However, while it is possible to argue that IVF could be interpreted as completely unconstitutional, there is much more leeway in constitutional interpretation, which would be strongly lobbied for by the lucrative ART community and the pharmaceutical companies that provide the very expensive medications that make IVF possible. According to the Center for Responsive Politics (2018), the majority of IVF-related lobbying is supported by organizations such as the American Society for Reproductive Medicine (ARSM), American Academy of Adoption & Assisted Reproduction Attorneys, Family Research Council, and Ferring Pharmaceuticals (a relatively small pharmaceutical company based out of Switzerland). Market research suggests the IVF services industry in the United States will see a 10.6% compound annual growth rate over the next couple of years, moving the market value from \$2,213.1 million in 2015 up to an estimated \$4,472.2 million by 2022 (Jaiswal, 2017). The aforementioned organizations have a vested interest in ensuring the future of IVF in America and therefore invest significant amounts of money in lobbying.

With this intense lobbying, in lieu of a complete ban on IVF, interpretation of life at conception bills would more likely strike a balance between valuing life at conception and continued support for infertility treatments. Italian policymakers recently undertook a similar debate. In 2004, the Italian parliament debated regulation of IVF in response to the Vatican's position that procreation is immoral outside of sexual activity (Boggio, 2005). The regulations placed upon IVF in Italy were based on a balance between arguments for reproductive access and arguments to value the sanctity of life (Boggio, 2005). The legislation passed with three primary limitations on IVF (Benagiano & Gianaroli, 2004). First, the law limited the number of embryos that could be created each cycle to three. Second, the law required all embryos be transferred each cycle, hence the cap at three to reduce the risk of multiples in the pregnancy. Third, the law banned cryopreservation, or freezing, of embryos for future use. Much of the law in Italy has been dismantled in recent

years (Riezzo, Neri, Bello, Pomara, & Turillazzi, 2016); however, the impact of the law provides a speculative window into what IVF practices in the United States could look like if life is defined as beginning at conception and a balance between embryo rights and reproductive justice is required. While IVF might still be legal, there are a multitude of negative consequences of limiting embryo creation, requiring embryo transfer, and outlawing cryopreservation. Under a legislative framework similar to Italy's former legislation, IVF success rates could be significantly lower, IVF could become even more expensive, there may be an increased rate of risky multiples pregnancies, and more medically-invasive procedures may be necessary for most persons using IVF to potentially grow their families.

### **Lower IVF Success Rates**

Of initial concern is that IVF fresh cycles are far less likely to be successful if only a limited number of eggs can be united with sperm. Under U.S. current standards approximately 10 eggs are retrieved during the IVF process (McAvey, Zapantis, Jindal, Lieman, & Polotsky, 2011). This number is based on attempting to mature as many eggs as possible without invoking the side effects that can arise from hyper-stimulating the ovaries (McAvery et al., 2011). Since it is impossible to tell which mature eggs are most likely to result in a pregnancy, fertilization by sperm is generally attempted with all retrieved eggs. Even when starting with an average of 10 eggs, the live birth success rate per IVF nondonor cycle is only 42.4% (CDC, 2019). If the number of eggs with which fertilization is attempted is legally reduced from an average of 10 to a maximum of three, the likelihood of experiencing a failed cycle would increase far beyond the current rate of nearly 6 out of 10. Finally, the rate of success will further decrease as time necessary for each cycle allows aging of patients for whom age was already a factor in infertility.

### **Higher IVF Cost**

Along with lower success rates comes increased expense as more cycles would be necessary to result in a live birth. The cost of IVF per fresh cycle averages \$12,000 in the United States, and the procedure is rarely covered by insurance (Johnston & Gusmano, 2013). In order to achieve pregnancy given reduced odds of success, IVF patients will likely have to go through more and more cycles at increasing cost. Additionally, if life at conception bills outlawed cryopreservation, patients would be unable to reap the benefits of freezing embryos for a much cheaper second attempt at a live birth. The cost of an IVF cycle when cryopreserved embryos are used could be one-quarter the cost of a fresh cycle as egg retrieval and the associated costs are unnecessary in frozen cycles (Van Voorhis, Syrop, Allen, Sparks, & Stovall, 1995). Taking cryopreservation technology out of the cost equation could take the possibility of pregnancy away from many Americans for financial reasons.

### **More Multiples Pregnancies**

If cryopreservation is not available but three embryos are created, patients will be loath to waste embryos. Further, if a life at conception bill mandated the implantation of all fertilized embryos, patients may not have an option to waste embryos. Yet, the American

Society for Reproductive Medicine (ASRM, 2017) recently released guidelines encouraging doctors and patients to transfer only one embryo per cycle in the majority of cases. The organization reduced the number of suggested embryos in 2017 to reduce the risk of a pregnancy with multiple fetuses. Pregnancy with multiples poses serious health risks to both mothers and babies, and greatly increases the cost of pregnancies and raising children if the children are born with special needs (ASRM, 2017). If embryos could not be cryopreserved and further cycles would have to start from scratch, patients would be highly likely (or potentially legally required) to transfer all embryos created, thus increasing the risk of pregnancy with multiples.

## More Medically-Invasive Procedures

Another potential consequence of life at conception bills is that additional invasive medical procedures and medication would be necessary for multiple IVF cycles. If each cycle must be a fresh (not cryopreserved) cycle and more cycles are necessary for success, patients will likely have to undergo the procedures and medication protocols many more times before achieving a live birth. The full risk of IVF medications are not known, but the stress of the cycles certainly has an emotional toll on individuals and couples (Ockhuijsen, van den Hoogen, Eijkemans, Macklon, & Boivin, 2014).

# Social Work Advocates Can Use IVF to Argue Against Abortion Restrictions

The most recent policy statements from the National Association of Social Workers (NASW, 2018a) proclaim, "women's bodies have become the battlegrounds on which ideological battles are waged" (p. 265). In response, NASW (2018a) has expanded the issue of choice surrounding abortion to a more inclusive lens of reproductive justice, which includes among other issues, access to infertility treatments and assisted reproductive technologies.

The NASW policy statement on reproductive justice specifically includes "opposing the repeal of *Roe v. Wade*" (p. 272). In reaching the position, NASW Speaks draws upon the NASW Code of Ethic's focus on self-determination and espouses:

Self-determination related to reproductive health means that without government interference or reproductive coercion...people should make their own decisions about sexuality and reproduction. As social workers, we support the right of individuals to decide for themselves, without duress and according to their own personal beliefs and convictions, when they want to become parents, and if they want to become parents. (p. 271)

As bans on abortion expand, the profession of social work calls upon members to advocate for reproductive choice, including affordable access to both abortions and infertility interventions (NASW, 2018a).

Further, as outlined by our Code of Ethics, social workers are tasked to challenge social injustice (NASW, 2018b). Denying individuals access to effective, minimally-invasive medical resources to grow their families is an oppressive act that disproportionately impacts already vulnerable populations, such as those already struggling to afford IVF,

certain same-sex couples or surrogacy situations, and those with medical conditions that may make IVF a necessary option for producing biological children. Political discourse surrounding abortion regulations typically focuses on fetuses developed several weeks into pregnancy. The impact upon embryos created through IVF is often left out of the discussion and debate on policy action on abortion. Limiting access to and increasing the medical risks of IVF may be a serious unintended consequence for many supporters of life at conception bills. Thus, social workers can leverage the potential negative impact of overturning *Roe v. Wade* on IVF in their advocacy toolbox in the upcoming years to better inform judges, politicians, and the public. For example, a common advocacy practice social workers can use to present social science research to the courts is to submit an amicus curiae brief. The briefs are intended to help judges make decisions. They provide information to the court regarding the impact of a potential court decision beyond just the facts involved in the immediate case (Boys, 2010). Hence, submission of an amicus curiae brief regarding IVF could be extremely beneficial for a judge or justice contemplating the unintended consequences of a law defining life to begin at conception.

# **Application of Merton's Five Barriers**

Merton (1936) identified five barriers to correctly anticipating the potential for unintended outcomes of social action: ignorance, error, immediate interest, basic values, and impacts of predictions. Social work advocates can apply these barriers as a framework for discussing the unintended consequences of life at conception bills on IVF.

# Ignorance

First, Merton (1936) identifies ignorance, the "lack of adequate knowledge" (p. 898), as the "most obvious" and occasionally the "sole barrier to correct anticipation" (p. 898). In regard to overturning Roe v. Wade, much of the public may not even contemplate IVF and infertility treatment as they advocate against the abortion of a developing fetus. Education regarding all aspects of reproductive health for advocates may need to begin within social work classrooms, as the Council on Social Work Education's (CSWE) 2015 Educational and Practice Standards (EPAS) do not require schools of social work to incorporate sexual health or reproductive health within their curriculum (Winter, Kattari, Begun & McKay, 2016). The most recent NASW (2018a) policy statements, however, do suggest including the reproductive justice paradigm in social work curriculums. Support for reproductive health education is evidenced by a survey of social work students at a large, public university that found 41% of those surveyed did not even know if abortion was legal in their state (Ely, Flaherty, Akers, & Noland, 2012).

Once education is provided, trained advocates can include the aforementioned statistics on the growing prevalence of IVF in testimony, amicus curiae briefs, letters, and countless other forms of educational advocacy. Advocates can expand upon the negative consequences to the many Americans trying to procreate healthy families through the use of IVF, and how life at conception bills could actually hinder the ability of prospective parents to conceive biological children.

#### Error

Error goes beyond mere ignorance to include misjudgments based on assumptions, habits, or failure (willfully or otherwise) to consider all aspects of the scenario (Merton, 1936). Persons who have never experienced infertility may not understand how the process of IVF works. Social work advocates can again use advocacy tools to provide information regarding how many embryos are typically created and why cryopreservation is beneficial. Without understanding the process, policy makers may not fully comprehend how cryopreservation can make IVF less expensive, more successful, and less risky.

#### **Immediate Interest**

Having a myopic focus on the immediate interest and taking action without sufficient consideration of alternative or secondary outcomes is a third barrier (Merton, 1936). With a focus solely on protecting the life of developing fetuses, the rights and interests of those hoping to grow a family through development of embryos is ignored. Social workers must expand the discussion of life at conception bills beyond abortion to the potential infringement on rights of those trying to create a biological family.

#### **Basic Values**

Politicians sometimes espouse campaign rhetoric premised on the fourth barrier, basic values. This barrier to anticipating unintended consequences places focus on fundamental values with reduced regard for "the objective consequences of these actions but only with the subjective satisfaction of duty well performed" (Merton, 1936, p. 903). Enacting antiabortion legislation may allow some legislators to fulfill campaign promises and secure reelection (Byrnes & Segers, 1992). As such, it is critical that advocates not only open politicians' eyes, but also educate their constituency to the wide impact their value of life might have, including preventing the development of families for persons desperately desiring to bear biological children.

### **Impact of Predictions**

Finally, Merton (1936) acknowledges the ability of public predictions to fundamentally change a situation and produce an opposite outcome when human conduct is involved. For example, consider election predictions that suggest one candidate will win by a landslide. As a result of that prediction, supporters of that candidate may feel secure in a victory and become lax in their voting whereas opponents may ramp up efforts to motivate their base to increase voter turnout. Though social workers cannot fully account for the impact of predictions, risks may be lessened through continued engagement, education, and action to otherwise reduce the likelihood of unintended outcomes of social actions.

Social work advocacy throughout the legislative process has the potential to positively impact barriers to correctly anticipate outcomes of social policy. Social workers providing legislators with access to empirical research and quality information can help reduce ignorance, error, and immediate interest. Providing legislators with outcomes of similar legislation in other places can increase knowledge, address assumptions, and present additional potential outcomes. Smith (2017) specifically notes that there is currently a

"policy window" for social work advocates to fight for reproductive justice while the issue is in the political forefront (p. 221).

#### Conclusion

Life at conception bills would be unlikely to outlaw IVF, but they could have a detrimental and unintended impact on IVF services and those experiencing infertility. With the potential of lower success rates, increased costs, increased chance of multiples, and more invasive procedures, IVF may no longer be a safe, viable option for individuals who need assistance to start or expand their biological families. In wake of the President's commitment to appointing Justices willing to overturn *Roe v. Wade*, and the nature of the precarious ground it rests upon, it is critical that social workers be informed and engaged in advocacy to protect rights of clients wishing to grow their families through IVF.

### References

- ACLU of Alabama (2019, May 24). ACLU, Planned Parenthood file lawsuit challenging Alabama abortion ban [Press Release]. Retrieved from <a href="https://www.aclualabama.org/en/press-releases/aclu-planned-parenthood-file-lawsuit-challenging-alabama-abortion-ban">https://www.aclualabama.org/en/press-releases/aclu-planned-parenthood-file-lawsuit-challenging-alabama-abortion-ban</a>
- ACLU of Georgia (2019, July 23). *ACLU*, *Center for Reproductive Rights, Planned Parenthood file motion for preliminary injunction on Georgia abortion ban* [Press Release]. Retrieved from <a href="https://www.acluga.org/en/press-releases/press-release-aclu-center-reproductive-rights-planned-parenthood-file-motion">https://www.acluga.org/en/press-releases/press-release-aclu-center-reproductive-rights-planned-parenthood-file-motion</a>
- American Society for Reproductive Medicine. (2017). Performing the embryo transfer: A guideline. *Fertility and Sterility*, 107(4), 882-896.
- Arkansas Human Life Protection Act, S.B. 149, 92<sup>nd</sup> Gen. Assemb., Reg. Sess. (Ark. 2019)
- Baron, N., & Bazzell, J. (2014). Assisted reproductive technologies. *The Georgetown Journal of Gender and the Law, 15*, 57-93.
- Benagiano, G., & Gianaroli, L. (2004). The new Italian IVF legislation. *Reproductive BioMedicine Online*, 9(2), 117-125. doi: <a href="https://doi.org/10.1016/s1472-6483(10)62118-9">https://doi.org/10.1016/s1472-6483(10)62118-9</a>
- Boggio, A. (2005). Italy enacts new law on medically assisted reproduction, *Human Reproduction*, 20(5), 1153-1157. doi: <a href="https://doi.org/10.1093/humrep/deh871">https://doi.org/10.1093/humrep/deh871</a>
- Boys, S. (2010). Let's talk about same sex: How social workers can make judges listen. *Advances in Social Work, 11*(2), 117-128. doi: <a href="https://doi.org/10.18060/432">https://doi.org/10.18060/432</a>
- Boys, S., & Walsh, J. S. (2017). The dilemma of spare embryos after IVF success: Social workers' role in helping clients consider disposition options. *Advances in Social Work*, 18(2), 583-594. doi: <a href="https://doi.org/10.18060/21551">https://doi.org/10.18060/21551</a>
- Browne, C. M., & Hynes, B. J. (1990). The legal status of frozen embryos: Analysis and proposed guidelines for a uniform law. *Journal of Legislation*, 17, 97-122.

- Byrnes, T.A. & Segers, M.C. (1992), *The Catholic Church and the politics of abortion: A view from the states*. San Francisco, CA: Westview Press.
- Carrick, P. (1995). *Medical Ethics in Antiquity: Philosophical perspectives on abortion and euthanasia*. Dordrecht, Netherlands: Springer.
- Center for Reproductive Rights. (2018, August 30). Center for Reproductive Rights opposes confirmation of Judge Brett Kavanaugh [Press Release]. Retrieved from <a href="https://reproductiverights.org/press-room/center-for-reproductive-rights-opposes-confirmation-of-judge-brett-kavanaugh">https://reproductive-rights.org/press-room/center-for-reproductive-rights-opposes-confirmation-of-judge-brett-kavanaugh</a>
- Center for Responsive Politics. (2018). Opensectrets.org. Retrieved from <a href="http://www.opensecrets.org/lobby/lookup.php">http://www.opensecrets.org/lobby/lookup.php</a>
- Centers for Disease Control and Prevention. (2011). Assisted reproductive technology success rates: National summary and fertility clinic reports. Retrieved from https://www.cdc.gov/art/pdf/2011-report/national-summary/art-2011-national-summary-report.pdf
- Centers for Disease Control and Prevention. (2017). ART success rates: Preliminary data, 2015. Retrieved from <a href="https://www.cdc.gov/art/artdata/index.html">https://www.cdc.gov/art/artdata/index.html</a>
- Centers for Disease Control and Prevention, Center for National Center for Chronic Disease Prevention and Health Promotion, Division of Reproductive Health. (2019). 2017 Assisted Reproductive Technology: Fertility Clinic Success Rates Report. Retrieved from <a href="mailto:ftp://ftp.cdc.gov/pub/Publications/art/ART-2017-Clinic-Report-Full.pdf">ftp://ftp.cdc.gov/pub/Publications/art/ART-2017-Clinic-Report-Full.pdf</a>
- Costa, M. (1996). Abortion: A reference handbook (2nd ed.). Santa Barbara, CA: ABC-CLIO
- Council on Social Work Education [CSWE]. (2015). 2015 Educational policy and accreditation standards for baccalaureate and master's social work programs. Alexandria, VA: Author.
- Craddock, J. J. (2017). Protecting prenatal persons: Does the Fourteenth Amendment prohibit abortion? *Harvard Journal of Law and Public Policy*, 40(2), 539-572.
- Crockin, S. L., & Debele, G. A. (2014). Ethical issues in assisted reproduction: A primer for family law attorneys. *Journal of the American Academy of Matrimonial Lawyers*, 27, 289-357.
- Davis, M. (2014). Maryland "embryo adoption": Religious entanglement in the Maryland Stem Cell Research Act of 2006. *University of Pennsylvania Journal of Law and Social Change*, 17(3), 291-327.
- Eckholm, E. (2011, October 25). Push for 'personhood' amendment represents new tack in abortion fight. *New York Times*. Retrieved from <a href="https://www.nytimes.com/2011/10/26/us/politics/personhood-amendments-would-ban-nearly-all-abortions.html">https://www.nytimes.com/2011/10/26/us/politics/personhood-amendments-would-ban-nearly-all-abortions.html</a>
- Eisenstadt v. Baird, 405 U.S. 438 (1972).

- Ely, G. E., Flaherty, C., Akers, L. S., & Noland, T. B. (2012). Social work student attitudes towards the social work perspective on abortion. *Journal of Social Work Values & Ethics*, 9(2), 34-45. doi: https://doi.org/10.1080/00981389.2011.642945
- Engelman, P. C. (2011). *A history of the birth control movement in America*. Santa Barbara, CA: ABC-CLIO.
- Ferree, M. M., Gamson, W. A., Gerhards, J., & Rucht, D. (2002). Shaping abortion discourse: Democracy and the public sphere in Germany and the United States. Cambridge, UK: Cambridge University Press. doi: https://doi.org/10.1017/cbo9780511613685
- Griswold v. Connecticut, 381 U.S. 479 (1965).
- Guttmacher Institute. (2019). State policy updates: Major developments in sexual & reproductive health. Retrieved https://www.guttmacher.org/state-policy
- Jaiswal, P. (2017). U.S. IVF services market by cycle type [fresh cycle (non-donor), thawed IVF cycle (non-donor), and donor egg IVF cycle], and end user (fertility clinics, hospitals, surgical centers, and clinical research institutes) Opportunity analysis and industry forecast, 2014-2022. Retrieved from <a href="https://www.alliedmarketresearch.com/US-IVF-services-market">https://www.alliedmarketresearch.com/US-IVF-services-market</a>
- Johnston, J., & Gusamano, M. K. (2013). Why we should all pay for fertility treatment: An argument from ethics and policy. *Hastings Center Report*, 43(2), 18-21. doi: <a href="https://doi.org/10.1002/hast.155">https://doi.org/10.1002/hast.155</a>
- Lawrence v. Texas, 539 U.S. 588 (2003).
- Mastenbroek, S., Van der Veen, F., Aflatoonian, A., Shapiro, B., Bossuyt, P., & Repping, S. (2011). Embryo selection in IVF. *Human Reproduction*, *26*(5), 964-966. doi: <a href="https://doi.org/10.1093/humrep/der050">https://doi.org/10.1093/humrep/der050</a>
- McAvey, B., Zapantis, A., Jindal, S., Lieman, H. J., & Polotsky, A. J. (2011). How many eggs are needed to produce an assisted reproductive technology baby: Is more always better? *Fertility and Sterility*, *96*(2), 332-335. doi: <a href="https://doi.org/10.1016/j.fertnstert.2011.05.099">https://doi.org/10.1016/j.fertnstert.2011.05.099</a>
- Merton, R. K. (1936). The unanticipated consequences of purposive social action. American Sociological Review, 1(6), 894-904. doi: https://doi.org/10.2307/2084615
- Murphy, J. B. (2013). Access to in vitro fertilization deserves increased regulation in the United States. *Journal of Sex & Marital Therapy*, 39(2), 85-92. doi: https://doi.org/10.1080/0092623x.2011.632072
- National Association of Social Workers [NASW]. (2018a). *Code of ethics of the National Association of Social Workers*. Washington, D.C.: Author.
- NASW. (2018b). *Social work speaks* (11th ed.). Washington, DC: Author. doi: https://doi.org/10.1093/sw/39.6.755

- Nossiff, R. (2001). *Before Roe: Abortion policy in the States*. Philadelphia, PA: Temple University Press.
- O'Brien, M. (2010). An intersection of ethics and law: The frozen embryo dilemma and the chilling choice between life and death. *Whittier Law Review*, *32*, 171-196.
- Ockhuijsen, H., van den Hoogen, A., Eijkemans, M., Macklon, N., & Boivin, J. (2014). Clarifying the benefits of the positive reappraisal coping intervention for women waiting for the outcome of IVF. *Human Reproduction*, 29 12), 2712-2718. doi: <a href="https://doi.org/10.1093/humrep/deu253">https://doi.org/10.1093/humrep/deu253</a>
- Paulk, L. B. (2014). Embryonic personhood: Implications for assisted reproductive technology in international human rights law. *Journal of Gender, Social Policy & the Law, 22*(4), 781-823.
- Phillips, A. (2016, June 1). 14 States have passed laws this year making it harder to get an abortion. *The Washington Post*. Retrieved from <a href="https://www.washingtonpost.com/news/the-fix/wp/2016/06/01/14-states-have-passed-laws-making-it-harder-to-get-an-abortion-already-this-year/?utm\_term=.73ea4ef22029</a>
- Planned Parenthood v. Casey, 505 U.S. 833 (1992).
- Riezzo, I., Neri, M., Bello, S., Pomara, C., & Turillazzi, E. (2016). Italian law on medically assisted reproduction: Do women's autonomy and health matter? *BMC Women's Health*, 16(44), 1-7. doi: <a href="https://doi.org/10.1186/s12905-016-0324-4">https://doi.org/10.1186/s12905-016-0324-4</a>
- Roe v. Wade, 410 U.S. 113 (1973).
- Seelye, K. Q. (2011, November 8). Mississippi voters reject anti-abortion measure. *The New York Times*. Retrieved from <a href="https://www.nytimes.com/2011/11/09/us/politics/votes-across-the-nation-could-serve-as-a-political-barometer.html">https://www.nytimes.com/2011/11/09/us/politics/votes-across-the-nation-could-serve-as-a-political-barometer.html</a>
- Shahbazi, M. N., Jedruski, A., Vuoristo, S., Recher, G., Hupalowska, A., Bolton, V.,. ..., Zernicka-Goetz, M. (2016). Self-organization of the human embryo in the absence of maternal tissues. *Nature Cell Biology*, *18*(6), 700-708. doi: <a href="https://doi.org/10.1038/ncb3347">https://doi.org/10.1038/ncb3347</a>
- Smith, B. D. (2017). Reproductive justice: A policy window for social work advocacy. *Social Work, 62*(3), 221-226. doi: <a href="https://doi.org/10.1093/sw/swx015">https://doi.org/10.1093/sw/swx015</a>
- Taylor, J. (2017, January 31). President Trump nominates Neil Gorsuch to the Supreme Court. *National Public Radio*. Retrieved from <a href="http://www.npr.org/2017/01/31/512708127/president-trump-to-announce-supreme-court-nominee-shortly">http://www.npr.org/2017/01/31/512708127/president-trump-to-announce-supreme-court-nominee-shortly</a>
- Tucker, C. (2014). Abandoned embryos: The dilemma of eternal storage. *New Hampshire Bar Journal, Spring/Summer*, 18-23.

- U.S. Department of Health and Human Services, Office of Population Affairs [HHS]. (2017). *Embryo adoption*. Retrieved from <a href="https://www.hhs.gov/opa/about-opa-and-initiatives/embryo-adoption/index.html">https://www.hhs.gov/opa/about-opa-and-initiatives/embryo-adoption/index.html</a>
- Van Voorhis, B. J., Syrop, C. H., Allen, B. D., Sparks, A. E. T., & Stovall, D. W. (1995). The efficacy and cost effectiveness of embryo cryopreservation compared with other assisted reproductive techniques. *Fertility and Sterility*, *64*(3), 647-650. doi: https://doi.org/10.1016/s0015-0282(16)57808-x
- West Alabama Women's Center v. Williamson. No. 17-15208, 2018 U.S. App. LEXIS 23556 (11th Cir. Aug. 22, 2018).
- Winter, V. R., Kattari, S. K., Begun, S., & McKay, K. (2016). Personal and professional values: Relationships between social workers' reproductive health knowledge, attitudes, and ethical decision-making. *Journal of Social Work Values and Ethics*, 13(2), 35-46.
- Whole Woman's Health v. Hellerstedt, 136 S. Ct. 2292, 2354 (2016).

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