2019 ISSUE 2 ABORTION REPRODUCTIVE TECH

Will a New Kind of Pill Be the Holy Grail We Seek?

So-called "contragestive" medications have been deemed a disruptive technology because they blur the distinction between contraception and abortion drugs like mifepristone, for example, have a truly game-changing potential. These agents that induce miscarriage can shift the ability to end pregnancy from doctors and medical professionals to the pregnant woman herself. Though the goal is at last coming into view, the pilgrimage towards the long sought-after objective is beset with obstacles political, professional and scientific. Conscience asked Beverly Winikoff to lay out a roadmap.

BY BEVERLY WINIKOFF, MD MPH // POSTED SEP 20, 2019

Medical, moral and metaphysical conclusions about the biology of reproduction have historically been informed by observations of the processes involved, along with fantasies about the unobserved aspects of the course of reproduction. The resulting mix of pragmatic observation and theories related to morality has an illustrious history and a large impact on debates today.

Before there was any capacity to "see" inside a pregnant uterus, both physicians and moralists grappled with the question of when a pregnant woman could be considered to have another life within her. The concept of "ensoulment" was used to define a moment in time when a soul entered the developing corporeal presence, somewhat akin to a statement of personhood.

In ancient Greece, interestingly—and on what evidence, one might ask—male and female embryos reached the advent of ensoulment at different times. Looking at the development of this normative concept, one can see that part of it took into account what was known by medicine. For example, the Greeks knew that the development of the embryo and fetus followed a definite sequence of events. Only after a certain amount of time could a pregnant woman perceive that something was moving inside her, called "quickening"—or the perception of movement within and the presence of "life." Other parts of the construct, such as the concept of soul or development of individuality, were unassociated with observable facts.

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Although we now have more ways to see into a pregnant uterus, we are still afflicted with incomplete knowledge and frequent distortions of the biological processes involved in creating new people. These confusions or misunderstandings can impact medical and legal guidelines and underlie some of the inappropriate suggestions for regulation of abortion. For instance, the assertion that (human) life begins "at the moment of conception" is impossible to act on—or even reify. The first problem is that there is no scientific definition of the time of "conception." In common usage, the word is often substituted for fertilization. The dictionary lists several synonyms for the word "fertilization," including conception, impregnation, insemination, implantation and inception of pregnancy. But some of these events occur at very different moments in the beginnings of a pregnancy—and most of the truly scientific words describe a process that can extend over hours to days. Bottom line: There is no "moment of conception" or "moment of fertilization." Conception and fertilization are processes that occur over time—and occur within variable windows after ovulation. Medically, a pregnancy is said to exist only after implantation has occurred, marked by the secretion of the pregnancy hormone human chorionic gonadotropin (hCG). And implantation is also a process that cannot be observed in real time.

The invocation of the biological processes surrounding early pregnancy as a limit on when interventions can occur or after which they should be prohibited prioritizes almost mythical, unseeable events over women's own wishes to avoid a birth. The availability of magical technology (ultrasound, early measures of hCG) provides a new way to know the future: that a baby may be born some months later. We can thus "see" into the uterus in a way not possible years ago— even in 1973, when Roe v. Wade became the law of the land. Habits of language and tenacious political positions did not foresee the new world of the ability to detect a pregnancy almost before it has begun. Nor did physicians, politicians and advocates for women's rights and health imagine the arrival of pills that could disrupt early implantation and end an incipient or very early pregnancy. No one predicted that women could have effective and safe abortions in the privacy of their homes, as many women do today. The language surrounding out-of-hospital abortions, suggesting dire health risks, is not compatible with 21st-century, safe home abortions.

In fact, early pregnancy failure is a very common event among unprotected sexually active women exposed to sperm. Many late periods are actually failures of implantation (estimated between 30–50 percent of all fertilizations), and early miscarriages can affect 10–20 percent of recognized pregnancies. These events are exactly like the events following use of mifepristone and misoprostol at early stages after implantation has begun. While there is a surge of medical concern by people wanting to curb easy access to abortion medicines, there seems to be no special medical worry about women who manage their own early pregnancy failures without an attending medical person with admitting privileges to a local hospital. Indeed, some of the same medicines used for abortion are given to women to use at home to treat spontaneous miscarriage.

The obverse, however, is worrisome: Women may well be criminally prosecuted for having spontaneous miscarriages under some of the most draconian recent legislation limiting access to safe induced abortions. In addition, women are faced with unnecessary restrictions on the safe medications available for abortion. This situation is exacerbated by the subtle way in which the word "abortion" conjures up something dangerous and medically complex—clearly something that would not be advocated for do-it-yourself care. But procedural (or "surgical") abortion requires much more training and carries different and potentially more risks than the early use of abortion pills. So, using the same word ("abortion") for both interventions stacks the deck against allowing wider access to abortion pills. The result: the abortion pill is often regulated in the exact same way surgical services are—including restrictions on types of providers, facility constraints and unnecessary mandated tests.

Indeed, in the US, mifepristone is marketed with a Risk Evaluation and Mitigation Strategy (REMS) incumbent on the distributor, which requires certification of providers, no pharmacy sales by prescription and, by common interpretation, distribution to patients only inside a medical office or clinic. Many more dangerous drugs are available by direct access in a pharmacy, including addictive opioids and very powerful heart and cancer medications. In the case of mifepristone, the registration of providers has proven to inhibit use, especially where providers of abortion services prefer not to be identified publicly. There seems to be no scientific evidence that these regulations prevent harm, but they clearly prevent access and the development of new models of provision of services.

Yet, slowly, new models are evolving. They generally provide less contact with health professionals, more use of online information or services, fewer tests or other requirements and more use of pills. A combination of intended obstacles, including laws and regulations forcing clinic closings, as well as the expansion of services offering abortion pills, means that more and more US abortions involve home use of medications. A s these changes proceed, one result has been a lowering of the gestational age among abortions in the first trimester, which comprise 90 percent of all US abortions. We have not yet begun to see widespread use of available pills for very, very early abortions, in other words, within the first days of a missed menses as a sort of home menses inducer— or what is known internationally as "menstrual regulation." But there is documentation of the wish for such pills by US women, and, with easier availability, there might well be women for whom this could be a preferred method. As is often the case, scientific possibilities exist to make big changes. Not all problems will be solved by scientific innovation, of course, and the ways in which people understand the biology of reproduction and its meanings will continue to impact strongly on politics and policy. Developing new ways to talk about the biology of reproduction and demystifying the unseen processes involved may be one precondition for getting to a better place.

In the past, the distinction between contraception and abortion has been clear. Contraception stops a pregnancy from occurring; an abortion ends a pregnancy that has been established. Clinicians did one or the other or both, but they knew what they were doing. Lines were drawn, and some doctors who were content to provide contraception refused to be involved in abortion. US policy draws a clear bright line. But mifepristone muddies the water. The drug works to stop a pregnancy from happening (as a contraceptive) or from continuing (as an abortion).

Indeed, concern for the future of abortion services in the US has centered on the possibility that Roe v. Wade will be overturned. Yet, in some ways, we are already there: states that choose to inhibit abortion access have been quite effective in doing so without actually banning all pregnancy terminations. The existential threat, however, is the personification of the embryo and fetus. Enshrining early developmental stages of pregnancy as "persons" under the law could have the effect of banning all abortions everywhere in the US. One of the ways to avoid this risk is to emphasize the incremental biology of reproduction, which, in its widest form, would allow us to understand that we cannot know the "moment of conception," that there are times when contraception and abortion cannot be distinguished, and that an embryo cannot be considered a legal person. If we fail to educate legislators, judges, doctors and the public at large about the most sophisticated understandings of biology, all of these arguments could well be lost.

BEVERLY WINIKOFF, MD MPH is currently president of Gynuity Health Projects and a professor of clinical population and family health at the Mailman School of Public Health, Columbia University. Her work has focused on issues of reproductive choice, contraception, abortion and women's health. Dr. Winikoff graduated from Harvard University magna cum laude, earned her MD degree from New York University and her MPH degree from the Harvard School of Public Health.