Many young women were understandably seduced by the once widely publicized message that if they chose to delay pregnancy and were then unable to conceive, they could still have babies through in vitro fertilization, also known as I.V.F.

Miriam Zoll was one of them. Married at age 35, she thought she had plenty of time to start a family. After all, she said, “My mother had me at 40, and since 1978, the fertility industry has been celebrating its ability to help women have children at older ages.”

When at 39 she and her husband decided to start a family, they discovered that nature refused to cooperate. Four emotionally and physically exhausting I.V.F. cycles (and two attempted donor egg cycles) later, they remained childless.

“What the industry didn’t say is that the success rate for older women is consistently low,” she said. “It focused on the 20 percent of women who succeed, not the 80 percent failure rate. The industry avoided saying that the technology hasn’t worked for an estimated 20 million women globally during the last 40 years.”

Women who did not have healthy babies with I.V.F. are far less likely to speak openly about the procedure than those for whom the technique was successful.

Shocked by what happened to her and realizing that so many other women faced similar disappointment, Ms. Zoll, who lives in Conway, Mass., decided to write a book, “Cracked Open: Liberty, Fertility, and the Pursuit of High-Tech Babies,” to put assisted reproduction on a more realistic footing and counter the rosy picture of I.V.F.

Her story prompted me to check the latest federally mandated statistics gathered by the Centers for Disease and Prevention from the nation’s nearly 500 fertility clinics on I.V.F. procedures done in 2013. Using fresh (that is, not frozen) eggs or embryos from women trying to conceive, at age 40 fewer than 30 percent undergoing I.V.F. became pregnant and fewer than 20 percent gave birth to live babies as a result.

The success rate was somewhat better when I.V.F. was done with frozen embryos from a woman’s own eggs: about 42 percent became pregnant and 30 percent delivered live babies.

Dr. Mark V. Sauer, former director of the I.V.F. clinic at Columbia Presbyterian Medical Center who has been using the technique for three decades, corroborated Ms. Zoll’s frustration with the industry’s self-promotion.

“Programs will brag that they are the best, with extraordinarily high rates of pregnancy even in women over 40,” Dr. Sauer said in an interview. “There’s hardly any age that the clinics now turn away.” He cited reports in both the lay and medical literature of even postmenopausal women giving birth through I.V.F.

On clinic websites, he said, “There’s a lot of massaging of the data, often combining data from several years to make the results look better. And clinical pregnancy rates do not necessarily reflect livebirthrates. Live births are what really matter.”

Furthermore, he said, “The younger women are when they undergo I.V.F., the better the pregnancy rates,” adding that younger women are also more likely to have healthy pregnancies that end with the birth of healthy babies.

In a report he published last year in Fertility and Sterility, Dr. Sauer wrote that “advanced age” is a risk factor not only for female infertility, but also for “pregnancy loss, fetal anomalies, stillbirth, and obstetric complications.”

Although these risks have been known for centuries, “women are delaying childbearing to pursue educational and career goals in greater numbers than ever before,” he wrote. “Data from the United States demonstrate a dramatic rise in births to mothers once considered ‘elderly.’ This is particularly evident in women older than 40,” an age at which there is a significant rise in infertility, as well as higher rates of miscarriage among women who succeed in getting pregnant.

Dr. Sauer pleaded with doctors to “promote more realistic views” of the realities of pregnancy at advanced ages. He advised doctors to “actively educate both patients and the public that there is a real danger of childlessness if individuals choose to delay reproduction. It should be with guarded optimism that we promote delayed childbearing to our patients, because risks to both mother and child are invariably present; and because many failed attempts also occur, the risk of lifelong childlessness cannot be overstated.”

The doctor acknowledges the dilemma faced by women who seek higher education and want to become established in a career before attempting to start a family. And he realizes that “ideally pregnancy should also occur when they are settled with a life partner who will share the burden of raising offspring.”

Nonetheless, Dr. Sauer points out, the facts of biology are irrefutable. "Biologically speaking," he wrote, “women are most fertile between the ages of 15 and 30." Although from a career perspective, many are unwilling to start a family then, ages 35 to 45 represent the "terminal decline in normal fecundity," as well as a greatly increased risk of producing eggs and embryos with chromosomal and other abnormalities.

Ms. Zoll’s devastating experience with I.V.F. changed her “from a trusting consumer into a person who now knows she has to do her own research — even before seeing the doctor — and has to ask lots of questions. I trusted what the doctors told me, and afterward was blown away by my own naïvété. Consumers should be saying, ‘Let me see the evidence.’”

After spending a significant amount of money (most, fortunately in her case, covered by insurance mandated by the state of Massachusetts) and seven years trying to have a baby, Ms. Zoll said she and her husband “moved very quickly into adoption, and within seven months of filing adoption papers, our son was placed with us.” She described their son, now 7, as “tenacious, smart and funny. I can’t imagine having anyone so close to my heart.”