“Relationship between Ultrasound Viewing and Proceeding to Abortion” (2014), by Mary Gatter, Katrina Kimport, Diana Greene Foster, Tracy A. Weitz, and Ushma D. Upadhyay [1]

By: Venkatraman, Richa


In January 2014, Mary Gatter and colleagues published “Relationship between Ultrasound Viewing and Proceeding to Abortion” in Obstetrics and Gynecology hereafter “Ultrasound Viewing.” As of 2021, ten states require women to undergo an ultrasound[5] before they may consent to having an abortion[6]. Self-described pro-life organizations assert that viewing an image of the fetus[7] will dissuade women from having an abortion[6]. The authors reviewed women’s medical records from over fifteen thousand visits to one abortion[6] provider in 2011. The authors determined viewing an ultrasound[5] image did not change the minds of women who were already highly certain that abortion[6] was the right decision, challenging the idea that mandatory ultrasound[5] viewing has any effect on women’s decision to have an abortion[6].

Ultrasound imaging is a technique that physicians use to view a fetus[7] inside the uterus[8]. Physicians perform ultrasounds to determine the stage of pregnancy[9] and to view any abnormalities and characteristics of the fetus[7] as it develops throughout pregnancy[9]. An ultrasound[5] is not medically necessary before having an abortion[6], but physicians perform ultrasounds on women seeking an abortion[6] as a standard part of abortion[6] care. As of 2021, ten states mandate by law that women undergo an ultrasound[5] before they may consent to having an abortion[6]. Eight of those states require that the physician performing the ultrasound[5] gives the woman the option to view the image of the fetus[7]. In most states with an ultrasound[5] requirement, the woman may choose not to view the ultrasound[5] image, but in Louisiana, Kentucky, Tennessee, Texas, and Wisconsin, the physician must display the ultrasound[5] image and describe the fetus[7] to the woman. In Texas, Louisiana, and Wisconsin, the law allows the woman to avert her eyes from the image if she does not wish to see it, but the physician must still display and describe the image. In Virginia and Wisconsin, the ultrasound[5] laws contain exceptions for women sexually assaulted.

Ultrasound laws are often based on model legislation distributed by self-described pro-life organization[10] Americans United for Life, or AUL, called the “Women’s Ultrasound Right to Know Act.” Denise M. Burke, the vice president of legal affairs for the AUL in 2011, argued in the introduction to the 2011 model legislation that ultrasound[5] requirements are essential to ensuring that women make the most informed choice about whether to have an abortion[6]. Burke argues that providing women with the opportunity to see the face and form of what she calls the unborn child[11] in an ultrasound[5] image is important to protecting women’s psychological health. The goal of ultrasound[5] requirements, according to AUL, is ultimately to convince women to continue the pregnancy[9] to term and dissuade them from abortion[6]. In their research, Gatter and colleagues found little to no indication that viewing an ultrasound[5] image of the fetus[7] led women to decide against having an abortion[6].

Gatter is an obstetrician-gynecologist, a physician specializing in women's reproductive health and medicine, and a medical director at Planned Parenthood Los Angeles in Los Angeles, California. Gatter is a fellow with the American College of Obstetrics and Gynecology, or ACOG. Gatter, Katrina Kimport, Dianna Greene Foster, Tracy A. Weitz, and Ushama D. Upadhyay researched together pertaining to women’s decisions about and emotional responses to abortion[6] multiple times before they coauthored “Ultrasound Viewing.” The authors cite several studies that they authored or coauthored that built up to their work in “Ultrasound Viewing.”

Kimport, Foster, Weitz, and Upadhyay work for the Bixby Center for Global Reproductive Health at the University of California, San Francisco or UCSF in San Francisco, California, and are involved in the Bixby Center's research project, Advancing New Standards in Reproductive Health, or ANSIRH. Kimport is an associate professor at UCSF and has conducted research about understanding women's personal and social experience of abortion[6], and she is the principal investigator with ANSIRH's research project on ultrasound[5] viewing. Foster is a professor in the Department of Obstetrics, Gynecology, and Reproductive Sciences and the Director of Research for ANSIRH. Foster studies family planning[12] policies and the effect of unintended pregnancies on women. Weitz cofounded ANSIRH in 2002 with Felicia Stewart. She became director of ANSIRH in 2006 and has produced many publications about various aspects of abortion[6]. Upadhyay is an associate professor at UCSF and an affiliate of ANSIRH. Her research focuses on the effects of women's empowerment on women's reproductive health, improving access to abortion[6] and contraception[13] for vulnerable populations, and the impact of state-level abortion[6] policies on women's lives.

"Ultrasound Viewing" begins with a brief background and then divides into three sections. In Methods and Materials, the authors...
describe the data they collected on patient visits to Planned Parenthood Los Angeles, including demographic information about the patients, whether they chose to view the ultrasound [9], and if they had an abortion [8]. The authors also discuss the methods they used to analyze that data. In the Results, the authors describe their analysis of that data and their conclusions about the effects of viewing an ultrasound [9] on patients’ decision to have an abortion [8]. In the Discussion, the authors describe the implications of their results for abortion [8] care and abortion [8] politics.

In the background section, the authors briefly discuss the context surrounding their research and the previous studies that led them to the question of whether viewing an ultrasound [9] image had any impact on women’s decision to have an abortion [8]. They state that ultrasound [9] scanning is not typically medically necessary before an abortion [8] but is a routine part of abortion [8] care. They reference previous studies from 1997 and 2003 that found that viewing an ultrasound [9] image facilitated maternal-fetal bonding in women with wanted pregnancies. They also cite a 1983 editorial by two physicians who speculated that viewing an ultrasound [9] image could cause the same maternal-fetal bonding in women who want an abortion [8], leading women to rethink their decision.

The authors cite several studies that Kimport, Weitz, and Foster authored or coauthored that demonstrated that women’s certainty in their decision to have an abortion [8], rather than the experience itself, has a greater impact on whether they experience emotional difficulties post-abortion [8]. That research suggested that ultrasound [9] viewing, which is part of the abortion [8] experience, may not have a significant effect on women who already had a high level of certainty in their decision. They also cite two previous studies, one from South Africa and one from Canada, that previously found that viewing an ultrasound [9] image had no effect on women’s decision to have an abortion [8] or continue their pregnancies. However, the authors state that both of those studies only surveyed a small population of women, which may have made it difficult to detect any small effect of ultrasound [9] viewing. The research in "Ultrasound Viewing" built on the previous two studies by studying the same question in a different country, the United States, and by analyzing data from a much larger sample of over fifteen thousand women.

Finally, in the background section, the authors state that in a 2013 study they all coauthored, the five researchers analyzed the same data from the same fifteen thousand patients to identify factors that increased the likelihood of women choosing to view an ultrasound [9] image before an abortion [9]. The authors found that women who identified as nonwhite, younger than twenty-five years of age, were at or below the federal poverty level, and who had medium or low levels of certainty about their decision to have an abortion [8] were more likely to choose to view an ultrasound [9] image. They found that overall, women chose to view the ultrasound [9] image 42.5 percent of the time.

In "Materials and Methods," the authors describe the methods they used to collect and analyze the data. The authors used the data they collected for their 2013 study for the 2014 ultrasound [9] viewing study as well. They obtained the data from medical records of all abortion [8] care-related visits in 2011 to Planned Parenthood Los Angeles, a large, urban abortion [8] care provider with nineteen clinical sites. The data was de-identified, meaning all personal and identifying information about the patients was removed before the researchers obtained it. Physicians performed an ultrasound [9] on each woman and asked each woman if they wished to view the ultrasound [9] image. The women’s decisions were documented electronically in their medical records, which also included women’s age, ethnicity, poverty level, pregnancy [9] history, and the gestational age of the fetus [7] at the time.

The authors’ data set included the type of abortion [8] procedure performed and the patient’s level of certainty about having an abortion [8], which the authors refer to as decision certainty. To determine the decision certainty of each patient, the clinic staff asked each woman how they felt about having an abortion [8] and grouped their responses into three categories: high, medium and low decision certainty. Women within the high decision certainty category, 85.4 percent of the women, expressed feeling confident and clear about their decision. Women with medium decision certainty, 7.4 percent of the women, expressed feeling sad, angry, afraid, or ambivalent, but clear about their decision to have an abortion [8]. Forty-five women out of 15,168 medical records expressed feeling confused, conflicted, or undecided about having an abortion [8], while one woman did not want to have an abortion [8]. Those women made up the category of low decision certainty. The authors included members of the low group in the medium because of the low group’s small size. Approximately 7.2 percent of medical records categorized as missing did not have a recorded decision certainty.

The authors define their primary outcome as whether the women had an abortion [8] or continued their pregnancy [9] to term. Some patients explicitly stated they wanted to continue the pregnancy [9], which healthcare professionals recorded in their medical records. Some patients left the clinic after their visit without receiving an abortion [8] and did not return. Those patients may have obtained an abortion [8] at another clinic outside of Planned Parenthood Los Angeles, but for the purposes of the study, the authors categorized those people as choosing to continue their pregnancy [9] to term. The authors’ final sample included data from 15,575 visits for 15,168 pregnancies. The authors’ state 461 women had more than one pregnancy [9] over the course of 2011, accounting for the difference between visits and pregnancies. The authors used a multivariable analysis to compare the effects of different variables, such as decision certainty, age, ethnicity, and poverty level, on the decision to have an abortion [8].

In the Results, the authors describe the results of their analysis. They first describe the demographics of the patients and the
The authors end "Ultrasound Viewing" by discussing the implications of their research. They assert that the results of their study showed a linear increase over the months postpartum for attitudes to the pregnancy of pregnant women in the 1980s. In 1984, Reading led a group that studied the psychological changes over the pregnancy and the authors conclude that that information is likely more influential to women than the image of the fetus made little difference.

The authors then state that when they compared women who viewed and did not view the ultrasound image, without considering other factors, women who viewed the ultrasound image were slightly more likely to continue the pregnancy. When the authors factored in women's decision certainty, overall women who viewed the ultrasound image were still more likely to continue the pregnancy. Researchers considered other factors in addition to decision certainty, they observed the same trend. They noted that factors such as women's decision certainty, age, race, poverty level, and history had larger effects on whether they chose to continue the pregnancy than viewing the ultrasound image. Overall, women who had high decision certainty about having an abortion before viewing the ultrasound did not continue their pregnancies but proceeded to have an abortion. The effect of viewing the ultrasound image was only significant for women with medium or low decision certainty. Women who had been pregnant for longer were also more likely to continue the pregnancy than women who were still in the early stages of pregnancy.

In "Discussion," the authors discuss the implications of their findings. Most of the over fifteen thousand women in the study had high decision certainty and viewing the ultrasound image had no effect on their decision to have an abortion. Unlike the two previous studies which found that ultrasound viewing had no effect on the decision, "Ultrasound Viewing" found that voluntarily viewing the ultrasound image had a very small effect on the seven percent of women with medium or low decision certainty. The authors acknowledge that their findings about ultrasound viewing need to be contextualized within the field of abortion politics. Pro-life groups support the idea that viewing an ultrasound image will convince women to continue their pregnancies to term. Americans United for Life has stated that they authored the "Women's Ultrasound Right to Know Act" model legislation with that goal in mind. Abortion rights advocates have criticized ultrasound laws because they compel doctors to perform a procedure that is typically not medically necessary before having an abortion and attempt to persuade women not to have an abortion using emotional appeals and manipulation. The authors state that it is important to understand the role that viewing an ultrasound may play in women's decisions about abortion without overstating its effect compared to other factors that may influence that decision. For example, they found that women's likelihood to continue the pregnancy to term increased with the gestational age of the pregnancy. Ultrasound imaging enables a physician to determine the gestational age of the fetus, and the authors conclude that that information is likely more influential to women than the image of the fetus itself.

Gatter and colleagues explain that their findings are consistent with those of Anthony E. Reading, a researcher who studied the psychology of pregnant women in the 1980s. In 1984, Reading led a group that studied the psychological changes over the course of pregnancy and postpartum. Women were assessed with ultrasound and an attitude rating to the fetus' neonate between ten and fourteen weeks, at sixteen and thirty-two weeks gestation of their pregnancy, and at birth and three months postpartum for attitudes to the pregnancy and to the fetus' neonate. The Reading group found no relationship between ultrasound feedback and the woman's sense of attachment to the fetus, but the attitude rating of fetal attachment showed a linear increase over the pregnancy and the fetus' neonate.

The authors also acknowledge some of the limitations of their study. For example, the authors were unable to determine whether women who did not return to the clinic for an abortion continued the pregnancy or got an abortion elsewhere. Their data also did not enable them to measure viewing the ultrasound image confirmed some women's decision to have an abortion. They were also missing data on the decision certainty of over one thousand women, and within that group, there was a higher likelihood of continuing pregnancy.

The authors end "Ultrasound Viewing" by discussing the implications of their research. They assert that the results of their study cannot be used to make conclusions about women's experiences in states where ultrasound viewing is mandatory because in...
their study, women could choose to view the image or not. However, they remind that since over ninety-eight percent of women in their study who viewed the ultrasound [5] proceeded with abortion [6], it is unlikely that making ultrasound [5] viewing mandatory has any effect on abortion [6] rates. Additionally, the authors cite research that shows that patients have higher satisfaction and better health outcomes when they have more control over decisions related to their care, meaning that making ultrasound [5] viewing mandatory may have a negative impact. They conclude by saying they support giving women the option to view an ultrasound [5] but argue against mandatory viewing. They also conclude that physicians should not make assumptions about the effects of viewing ultrasound [5] images on women's decisions about abortion [8] and should be aware that patients with low decision certainty may need more time and support to decide whether abortion [6] is the correct decision for them.

"Ultrasound Viewing" established that among women in the United States, viewing an ultrasound [5] image of the fetus [7] has little to no effect on their decision to have an abortion [6]. That finding contradicts the idea supported by pro-life organizations that requiring physicians to perform ultrasounds and at least offer women the option of viewing the image will dissuade more women from having an abortion [6]. Pro-life organizations continue to support ultrasound [5] requirements in the name of informed consent [15] as of 2021.

**Sources**


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The Embryo Project at Arizona State University, 1711 South Rural Road, Tempe Arizona 85287, United States


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