

The Baby Makers (2012)

In 2012, the production company Waddell Media Production released the documentary *The Baby Makers*. The four-part series, directed and produced by Edel O'Mahony, follows multiple couples in Northern Ireland struggling with infertility problems as they utilize different treatments such as in vitro fertilization, or IVF, egg donation, and egg freezing. IVF is a procedure in which a woman's egg is fertilized by a sperm outside of her body. Once the sperm fertilizes the egg, a fertility doctor places the fertilized egg back into the woman's uterus. A narrator narrates the film, which features interviews with gynecologists and clinical embryologists. *The Baby Makers* brought awareness to infertility problems that couples in Northern Ireland experienced and IVF treatment, egg donation, and egg freezing as alternative methods for getting pregnant.

Many of the treatment options explored in *The Baby Makers* involve IVF, one of the most common treatments for infertility in the world. In the 1970s, gynecologist Patrick Steptoe and developmental biologist Robert Edwards introduced IVF as a solution to female infertility. Since the 1970s, IVF has become a popular treatment for couples who struggle to become pregnant. As of 2018, a single cycle of IVF treatment consists of four parts. First, a woman begins regularly injecting herself with medication. The medication stimulates multiple follicles, or fluid-filled sacs, to develop in the woman's ovaries, the organ where eggs develop. Each follicle contains one egg, the female reproductive cell. As the woman continues injections, the follicles that contain an egg develop for eight to ten days. While injecting herself with medication, the woman undergoes blood and ultrasound testing every one to three days to monitor the development of the ovarian follicles for the best chance of a possible pregnancy.

Once the woman's follicles are mature, a medical professional puts the woman under anesthesia. Next, the fertility doctor passes a needle through the top of the woman's vagina, while an ultrasound assists in guiding the needle to the ovary and follicles. An ultrasound is an imaging technique that uses sound to produce images of the inside of the body. Once the doctor locates the follicles, the doctor uses the needle to detach the egg from the follicle wall to remove it from the ovary. After the patient undergoes the egg retrieval process, medical professionals place the eggs in an IVF lab to be fertilized. Four hours after the egg retrieval process, lab technicians place the sperm of a partner or donor with the egg. An embryologist injects sperm individually into each egg, a process called intracytoplasmic sperm injection or ICSI. Another method used to fertilize the eggs is conventional IVF, a method similar to ICSI. In conventional IVF, an embryologist injects sperm into the same petri dish as the eggs without injecting the sperm directly into the eggs. In both IVF and ICSI, an embryo forms after a sperm fertilizes an egg. The lab cultures the embryos for two to five days.

Lastly, the patient undergoes an embryo transfer procedure. A doctor uses an ultrasound to place one or more embryos in the woman's uterus. After the procedure, the woman is sent home and she returns to the clinic fourteen days later to take a pregnancy test to determine if the IVF treatment was successful and she is pregnant. IVF works for 30 percent of women, and a single four-part cycle may cost over \$12,000 as of 2018 in the US.

In 2012, Waddell Media Production released the documentary *The Baby Makers* to bring awareness to fertility problems that both women and men face. The four-part series predominantly features four women who are undergoing IVF treatment or donating their eggs, although the stories of many other women are also included. The series consists of four episodes. The first episode introduces Adrienne and Adrian, a couple undergoing their fourth cycle of IVF treatment. The second episode of the documentary introduces Mel, a woman interested in donating her eggs. The third episode introduces Ali and Andrew, a couple undergoing their second cycle of IVF treatment. Concluding the

series, the fourth episode introduces Jilly and Peter, a couple attempting one cycle of IVF treatment in hopes of becoming pregnant with their first child.

In the opening of the first episode of *The Baby Makers*, which aired on 26 November 2012, a narrator states that one in seven couples struggle with fertility problems in the UK. The narrator introduces Adrienne and Adrian, a couple struggling with fertility issues, from County Down, Northern Ireland. Although Adrienne and Adrian have undergone three failed cycles of IVF treatment, physicians are unable to determine the cause of their infertility. According to the narrator, the National Health Service or the public health service in the UK, provides couples with one free cycle of IVF treatment in Northern Ireland. However, if the treatment is unsuccessful and does not result in a pregnancy, the couples are responsible to pay for subsequent IVF treatment at the Regional Fertility Center in Belfast, Northern Ireland, or at a private independent practice. The average cost of one cycle of IVF treatment in the UK is less than the cost in the US.

After the narrator introduces Adrienne and Adrian, the couple travels to the Origin Fertility Center, a private fertility clinic, in Belfast, Northern Ireland, for their fourth attempt at IVF treatment. The narrator explains that Adrienne will undergo a scan to determine if she is ready for the first part of treatment, which consists of twice daily injections. The injections will stimulate Adrienne's ovaries to produce more than the average number of eggs naturally produced in one month by the body. Amit Shah, a consultant gynecologist, discusses that Adrienne did not have any cysts on her ovaries and her uterus lining looks healthy enough to start the injections. According to Shah, Adrienne will return to the clinic in one week to undergo another scan to determine if the injections are working. Based on the results from that scan, Adrienne will make an appointment for the egg collection procedure.

Episode one of the series continues with Adrienne having undergone two weeks of the first step of IVF treatment by giving herself injections to stimulate her ovaries. As the film shows Adrienne giving herself injections, she explains that the injections are placed two finger widths on either side of the belly button. Next, Adrienne returns to the fertility clinic to undergo another scan that will reveal the number of follicles or fluid-filled sacs that have grown in her ovaries. The more eggs contained in the follicles, the more likely the IVF treatment is to result in pregnancy. Julie Hinks, a senior fertility nurse, notes that Adrienne has four follicles in her right ovary, while the number of follicles in the left ovary is unknown. Adrienne will return to the clinic in two days to undergo the egg collection procedure.

Episode one continues with Adrienne returning to the Origin Fertility Center to undergo the egg collection procedure performed by Richard Fawthrop, a clinical embryologist. The egg collection procedure involves a gynecologist extracting the fluid contents from each follicle. Then, an embryologist examines the fluid under a microscope to check for the presence of eggs. During Adrienne's procedure, Fawthrop notifies the gynecologist in the operation room that three eggs were collected from Adrienne's right ovary and four eggs from her left ovary. Fawthrop notes that each follicle produced one egg and he was pleased with the results of the procedure.

Following Adrienne's procedure, Fawthrop prepares Adrienne and Adrian's insemination procedure. Fawthrop explains that five of the seven eggs collected during the egg collection procedure are mature and injects a single sperm into each of the five eggs using a pipette. According to Fawthrop, fertilization of the egg will occur within eighteen hours of the insemination procedure.

As the episode continues, Adrienne returns to the clinic to undergo the embryo transfer procedure. According to Fawthrop, four of the five mature eggs were fertilized, and two of the fertilized eggs or embryos are transferred back into Adrienne's uterus. After the procedure, Fawthrop explains that Adrienne will take a pregnancy test in eleven days to determine whether she is pregnant and the treatment was successful. Following Adrienne's completion of one cycle of IVF treatment, Adrienne takes a pregnancy test. Adrienne's negative pregnancy test indicates she is not pregnant. At the end of episode one, a presentation slide is shown stating that 20 percent of women who undergo IVF treatment successfully carry a pregnancy to term in Northern Ireland.

On 3 December 2012, the second episode of *The Baby Makers* aired. The episode begins with the narrator introducing a woman named Mel. Mel visits the Origin Fertility Care, a private fertility clinic, to meet with Hinks, a senior fertility nurse, to discuss donating her eggs. Egg donation is the

process of a fertile woman donating her eggs to an infertile woman to assist in reproduction. After Mel undergoes screenings, Hinks explains that Mel is ready to start the first step of egg donation, which is injecting Suprefact, a synthetic hormone drug, into her stomach or thigh. Additionally, Mel takes a second injection of Menopur, a drug that stimulates the ovaries to produce more than the average number of eggs normally produced each month.

As the second episode continues, the narrator discusses the process of egg donation. The narrator explains that Suprefact and Menpur enable Mel's egg production to be coordinated with the anonymous women who are waiting to receive Mel's eggs. According to the narrator, Mel's egg donation is anonymous, and any infants born as a result of Mel's egg donation will be able to learn of Mel's identity once they turn eighteen years old. However, Mel can write a letter to the possible infant and provide a description of herself and a goodwill message.

The second episode continues with the narrator explaining the recommendations set by the Human Fertilization and Embryology Authority, or HFEA, pertaining to egg donations. In Northern Ireland, egg donation is uncommon and HFEA, an organization that regulates the fertility business, sets recommendations for egg donation. According to Jenny Hall, a managing director at the Origin Fertility Care, one of the new recommendations is that egg donors be paid a fixed sum of money per donation. Prior to the new recommendations, egg donors could not be paid. Hall explains that HFEA set the new recommendation to solve the problem of the shortage of egg donors in Northern Ireland and to raise awareness about the shortage.

Next, Mel attends the Origin Fertility Care for a scan to check if her ovaries are responding positively to the injections and verify there are no potential risks in continuing with the egg donation. According to the narrator, a medical professional found cysts on Mel's ovaries. The narrator explains Mel will have to undergo blood tests to indicate if the cysts are functioning or not. A functioning cyst is a sac that holds an egg and when the egg is released, the sac normally closes. However, if the sac does not close after the egg is released, the sac can fill with fluid and swell causing an obstruction in a woman's ovaries. Mel can begin the next part of treatment, stimulation, if the blood tests indicate the cysts are non-functioning.

As the second episode continues, Mel receives her blood test results. According to Mel, the blood test results indicate that her cysts are active, which means the cyst can obstruct the growth of the eggs in her ovaries. In the film, Mel undergoes a procedure to have the cysts drained. The procedure is necessary in order for Mel to continue with the egg donation process and to start the stimulation drugs. The stimulation drugs will stimulate Mel's ovaries to grow more than the average amount of eggs. A gynecologist removes the cyst located on Mel's left ovary by using cyst aspiration, a procedure that removes the fluid from the ovarian cyst.

After Mel's cyst is removed, she starts stimulation and returns to the Origin Fertility Care to undergo a scan. Mel undergoes a scan to see if she has produced enough follicles to donate her eggs. According to Hinks, Mel's scan looks normal and Mel should have enough egg for two recipients. Hinks notes Mel has a total of thirteen mature eggs and both recipients have been on drugs to ensure the lining of their uteruses are ready for the embryos to be implanted. Hinks explains that Mel's eggs will be fertilized with the sperm the recipients choose to use. Then, a gynecologist will place the embryos in the recipients two to three days after Mel's egg collection procedure.

As the second episode concludes, Mel attends the Origin Fertility Care to undergo her egg donation procedure. The narrator explains that Mel is placed under anesthesia for the procedure. During the procedure, a gynecologist removes the fluid in the follicles and checks the fluid in the adjoining lab to locate and safely store the eggs for fertilization. A gynecologist collects twelve eggs from Mel's procedure, enough eggs to help two women. According to Mel, one woman who received her egg donation is pregnant, while the other recipient is not pregnant. Mel mentions she would donate her eggs again in the future.

Part three of *The Baby Makers*, which aired on 10 December 2012, introduces Ali and Andrew, a couple of five years, who are undergoing their second cycle of IVF treatment because their first cycle of IVF failed. Ali explains that she is meeting with a consultant at the Origin Fertility Care to determine the next step of treatment. Ali meets with Shah, a gynecologist. Shah explains he needs to check some of Ali's hormone levels to determine how her ovaries will respond to IVF treatment.

After undergoing a blood test to determine her hormone levels, Ali and Andrew return to the clinic to discuss the results with Shah. Shah notes that Ali's levels are normal for a woman of her age, indicating that she should produce eggs while on stimulation drugs. After the meeting with Shah, Ali begins administering injections to enable her menstrual cycle to be artificially controlled and to stimulate her ovaries to produce more than the average number of eggs.

The third episode continues with Ali undergoing her egg collection procedure, which occurs five weeks after she started her injections. The narrator explains that despite multiple scans prior to the procedure, the gynecologist is still unsure of how many eggs will be collected during the procedure. After the procedure, gynecologist Efsthios Diakos states he collected nine eggs during Ali's procedure. Diakos explains the average number of eggs collected during the procedure is eight and he is pleased with the results.

Next, the film introduces Steve Green, a clinical embryologist at the Origin Fertility Care. Green prepares to inseminate Ali's eggs with Andrew's sperm. According to Green, there are 200,000 sperm per insemination and the process involves Green mixing the sperm and eggs together in a petri dish. Green explains that the goal is for the most viable sperm to enter the egg and for fertilization to occur. Green treats all nine eggs the same way and checks for fertilization the following morning. Green notes that all nine eggs are fertilized. Then, four days later, Green states that four of the nine embryos have reached an advanced stage. An advanced stage embryo is called a blastocyst. A gynecologist will transfer two of the four blastocysts back into Ali's uterus, while the remaining two blastocysts will be frozen for future use.

Lastly, Ali returns to the Origin Fertility Care to undergo her embryo transfer procedure. The narrator explains the procedure is painless. A catheter, which contains the embryos, is inserted into Ali's uterus. The gynecologist removes the catheter from Ali's uterus and the catheter is checked to verify there are not any more eggs contained in the catheter. According to the narrator, implantation will occur in the next 24 to 48 hours, if successful. Two weeks after the embryo transfer procedure, Ali's pregnancy test is negative, which indicates that the second cycle of IVF was unsuccessful.

The final part of *The Baby Makers*, which aired on 17 December 2012, follows Jilly and Peter, a couple whose prior pregnancy resulted in a miscarriage. The couple meets with Suresh Tharma, a gynecologist at the Origin Fertility Care. Tharma informs Jilly that she needs to reduce her body mass index to begin IVF treatment. Body mass index is a measure of body fat that is based on a person's height and weight. If a woman's body mass index is too high, the success rate of IVF treatment resulting in pregnancy decreases.

As the fourth episode continues, the narrator discusses the option of egg freezing and Green describes that option. The narrator states that as a woman's age increases, her odds of becoming pregnant decrease due to the decrease in her egg production. According to the narrator, egg freezing allows women to store their eggs for use in the future. Then, Green explains that eggs are frozen or vitrified by liquid nitrogen. The eggs have the biological ability to remain in storage for an indefinite amount of time. However, he mentions there are legal constraints as to how long a facility can keep the frozen eggs.

After the narrator and Green explain egg freezing, Jilly reaches her ideal weight, which allows her to begin the first step of IVF treatment, the injections. After starting the injections, Jilly returns to the Origin Fertility Care clinic to undergo a scan performed by a gynecologist to verify that the injections are working and she is producing more follicles. Jilly explains there are four main follicles and four smaller follicles. The smaller follicles are not considered optimal follicles since they have not reached the size of 17 millimeters, the cut off size for optimal follicles.

The documentary concludes with gynecologist Fawthrop performing Jilly's egg collection procedure. Fawthrop collects four eggs from Jilly's uterus and ICSI is performed on the eggs after Jilly's procedure. ICSI involves a clinical embryologist injecting a single sperm inside a single egg. The eggs were incubated overnight, then transferred to Jilly's uterus a couple of days later. According to the narrator, Jilly's treatment was unsuccessful as she miscarried the fetus. Jilly explains that after her miscarriage, she underwent multiple unspecified tests to find an explanation for her fertility problems. According to Jilly, the test results indicate that her natural killer cell levels are elevated. Natural killer cells assist the human body in preventing cancer. The average woman has under 15

percent of natural killer cells found in the body, while Jilly has 20 percent in her body. Jilly explains the natural killer cells detect any new cells inside the body as a foreign object. The cells then attack the new cell to protect the body. Jilly notes that she will attempt another cycle of IVF in the future. The Baby Makers brought awareness to the fertility problems that women and men face in Northern Ireland. Additionally, the four-part series informed the public of some of the available options people have to achieve pregnancy, such as IVF treatment and egg freezing. Throughout the documentary, IVF is explained in a step-by-step process, allowing viewers to understand the process.

Sources

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