THE
HASKAYNE
REPORT

Designer Babies: An Ethical Shopping Choice?

By Ghada Eldib

As technological advancements forge through the healthcare industry, a very critical progression that has the potential to change our future revolves around the genetic modification of babies. Designing the genetics of a future child is becoming normalized now more than ever, and needs to be addressed for better, or for worse. Doctors have conducted procedures to aid in these genetic selections and have received both positive and negative feedback. The increasing eugenics in this field has raised many warning signs, which have been addressed by medical ethics boards. However, there is a growing concern around doctors that take advantage of the pregnant woman's dollar. If one doctor refuses to do a procedure for safety reasons, for the sake of the unborn child, another doctor will pick up the slack and take the lead. This growing black market type of practice is raising grave concerns that mandates need to immediately address. Can there be an ethical method to commercialize the genetic modifications of unborn babies, or does this growing technology need to come to a halt?

Firstly, "designer babies" are babies whose genetic makeup has been specifically chosen or changed with the ideal goal to remove diseases hidden in genes (Pang & Ho, 2016). This field of altering the genetics of unborn children is increasing, and it is important to understand why it is becoming more popular amongst women who want to have children. A family that has a heritable disease such as cystic fibrosis would want to ensure that their child does not have to go through a chronic illness for the duration of their life. It is easy to sympathize with parents who would desire this for their offspring. The Pew Research Centre in Washington, DC conducted a study on 2,537 U.S adults from April to May 2018 and found that 72% believe that altering a baby's genes is appropriate to treat a disease that the baby would have at birth (Funk & Hefferon, 2020). To reduce the risk of a serious disease that could affect the lifetime of that baby, 60% of adults deemed it appropriate. However, 19% of that same group of adults found it appropriate to use medical technology to make the baby

"more intelligent". The conclusion derived from this study is that the support for gene editing is dependent on the purpose for which the gene editing is used for.

The perspective of Pew Research Center showed some interesting results, especially around the 19% who believed that the use of medical technology to make an unborn child supposedly more intelligent is appropriate. But one must ask themselves, "what are the perspectives of those in the medical field and what do they envision for the future of eugenics?". Dr. Jonathan Moreno, who is a professor at University of Pennsylvania, Department of Medical Ethics and Health Policy at the Perelman School of Medicine, believes that the future of designer babies is a possibility no one needs to express concern for (Berger, 2018). A simpler way to think about this issue is through an example provided by Dr. Moreno. If the human population suddenly decided to create mosquitoes in a lab, and release them all at once with the undoubted understanding that there would not be a next generation thereafter, what would be the expected outcome? While getting rid of a deadly disease such as malaria sounds like a very promising plan, have the lasting effects on the environment been considered? Dr. Moreno believes that the reason society is so fixated on this seemingly "science-fiction world" is due to the fact that there is an entire human evolution that precedes us. Tampering with what currently exists could be futile to humanity's future. The reality is that there are not many traits that can actually be altered, so there is the need for different questions to be posed concerning promoting good practices for doctors as well as eliminating threats to an unknown science-fiction future.

The international scientific community has many boards to address the standard of care such as the National Academy of Sciences and the Nuffield Council on Bioethics (UK). However, these boards need to become more foundational and set forth strong mandates that can be held to a standard for patients, especially regarding unborn children. Business-centred medicine is starting to show its claws and ethics boards need to start catching up. In his book, Designing Babies, Dr. Robert Klitzman captures some of the hidden darkness revolving around the design of unborn children (Klitzman, 2019). He discusses how the market of buying and selling eggs is highly unregulated and unfortunately is extremely profitable. He highlights that approximately 20% of American families use Assisted Reproductive Technologies (ARTs). The CDC highlights that as of 2019, 489 clinics in the US used ARTs (CDC, 2019). Privatized clinics have the potential to reject or accept mothers who are willing to pay, no matter the consequences. The question is no longer if it is possible to create designer babies, but rather if it should be done or not. Private clinics still owe a duty and standard of care to patients, but who is monitoring them? So now, as a reader, where do you think the line should be drawn? Is it really necessary to police what eye colour a child can or cannot have? If there are too many restrictions, is there potential for backfire from the scientific community? Is there really room for a world in the future where most of the population is genetically designed?

REFERENCES

Berger, M. W. (2018, December 13). Thoughts from a medical ethicist on gene editing babies. *Penn Today.* https://penntoday.upenn.edu/news/thoughts-medical-ethicist-gene-editing-babies

Centers for Disease Control and Prevention. (2021, December 27). State-specific assisted reproductive technology surveillance. *Centers for Disease Control and Prevention.* https://www.cdc.gov/art/state-specific-surveillance/index.html

Funk, C., & Hefferon, M. (2020, August 20). *Public views of gene editing for babies depend on how it would be used*. Pew Research Center Science & Society. https://www.pewresearch.org/science/2018/07/26/public-views-of-gene-editing-for-babies-depend-on-how-it-would-be-used/

Gardner. (2021, March 23). Designing babies: How technology is changing the ways we create children by Robert L. Klitzman, New York: Oxford University Press, 2020. *Journal of Medical Humanities*, *42*(3), 495–497. https://doi.org/10.1007/s10912-021-09684-4

Pang, R. T. K., & Ho, P. C. (2016, February 11). Designer babies. *Obstetrics, Gynaecology & Reproductive Medicine.* https://www.sciencedirect.com/science/article/abs/pii/S1751721415300063