

Pros and cons of designer babies



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A designer baby is a term used often by journalists where parents potentially might have options of using genetic technology to modify embryos and choose desirable or cosmetic changes. These leads to several questions. How will the parents prefer to have babies in future? Will they prefer to interfere with the natural process of embryo development? Is it ethical to make changes to an unhealthy embryo? Would this lead to parents who cannot afford genetic modification cost to disown their babies in embryo stage? There are a lot of ethical and legal questions surrounding designer babies.

Advanced reproductive technology using InVitro Fertilization (IVF) has already enabled parents to have babies by fertilizing eggs with sperm in 'test-tubes' outside the mother's body in a laboratory environment. This does reduce the chance that the child born will be free of genetic disorders as the parents do not have to follow the level of caution that a normal pregnancy would need to adhere. However there are only two types of advanced reproductive technologies that are legally carried out on humans. There are differing ethical and legal opinions on use of these technologies across the world.

The first technology involves determining the sperms that will fertilize the egg. This enables choosing the gender of the baby. The second involves genetically screening the embryos and only implanting back into the mothers womb selected embryos that have a higher probability of delivering healthier babies. This technology is known as preimplantation genetic diagnosis (PGD). The work behind designer babies can be attributed to the

scientists from the Human Genome Project and from Celera Genomics who initially prepared a working draft of the human genome.

This is considered a big achievement in cracking the genome code. The researchers as part of the exercise aim to construct a detailed genetic map of the human genome and determine the nucleotide sequence of human deoxyribonucleic acid (DNA). The working draft of the human genome suggests that the researchers have identified most of the human genomes but have distance to cover to assemble a finished sequence. Solving the human genome will tell the scientists lot about how life works.

This knowledge will help scientists interfere effectively in the process of helping parents have designer babies. The goals of the research are much broader but the knowledge would work as a catalyst for pro-designer baby lobbyists. What makes designer babies so controversial is that the world is still grappling with issues relating to reproduction that are yet unresolved. A wide majority of people it seems would want a more humanitarian view of the ethics of human conception as it is an aspect of life that weighs heavily on the basic needs of many people.

However across the world there are many communities who are opposed to sex selection. This is more pressing issue for the developing countries and the third world countries where social stigma is attached to having girl child. Families in these communities prefer to have male children who can become bread winners doing menial jobs. The skewed sex ratio in these communities is forcing governments to subsidize girl child education and softening the ban sex selection tests that enable slaying of the girl embryo.

The opposing to designer babies is being termed by people as eugenics. It created a furor in the society when in the year 2000; a British couple used the technology behind designer babies to create a healthy baby who could save the life of his little sister suffering from a form of disease that could be cured by stem transplant. This instance of creation of designer babies divided the United Kingdom (UK) medical, legal and social fraternity in deciding where the line has to be drawn in allowing designer babies to be 'ordered' by their parents.

What the controversy also pointed out was the ability to provide a donor from the family that could help their siblings suffering from painful and uncurable genetic disorders. Many feel that the medical merits of designer babies should force governments to allow the practice to flourish. This issue highlights the challenges in finding answers to - should parents be able to design their own babies? The broad reasons for parents trying to design babies could be - to have genetically healthy babies or to modify characteristics that parents might deem suitable.

While the former reason seems justifiable there are grey areas that need to be ironed out. Certainly parents should not be allowed to modify characteristics that they might deem suitable. To allow parents to have genetically healthy babies is a fair point as after all the responsibility of medicinal knowledge lies in the role to prevent and cure diseases. If by using modern technology babies with genetic disorders can be identified, medicine does have a role in taking preventive measures.

But, for healthier babies there is no need for parents to go for designer babies. For modifying characteristics deemed suitable by parent's amounts to interfering with the natural child bearing process. There are absolutely no medical reasons for parents wishing to alter the characteristics of the baby. The parents themselves would want to do that because of their own aspirations and the social pressures around having babies which certain characteristics that are not genetically at fault but not regarded highly in the social circles.

This would create two kinds of immediate problems - do the parents have rights to influence what the characteristics of their child should be and what sort of pressures would it create on the society. Parents should fundamentally have the right to decide whether they want to have a genetically unfit baby or not. They should have the right to modify the genes of the embryo. This would ensure that the baby leads a healthy and potentially content life thereby allowing the parents to focus on the proper nurturing of the baby.

However, parents do not have the right to decide for the child what physical characteristics the child should possess. It is a decision that should be left best to nature. As the choice of parents before birth could become a burden for the baby when he grows up. The parent - government relationship is at a low with experts in the government laying stress on the pregnancy period of mothers and stressing that the development of children has direct correlation to the care and behavior of parents.

Many feel that given leeway parents would decide to do things on their own and this would lead to harmful effects on the children. There are a lot social pressures that would be created by giving the parents the right to order designer babies. There are certain physical characteristics that a person has and the society is biased against. People with these characteristics would be pushed to a further minority status thereby increasing the insecurity and trauma that some people go through. There are genetic disorders that lead people to live a less than healthier life.

A lot of societies and governments effort goes in caring for such people. Will these people continue to be cared in the same manner or they will be looked upon as a burden on the society? Not all parents might be able to have the money to go for designer babies. This would lead to poor parents getting further marginalized as they would be left to rear potential genetically unfit babies. This would lead to further division of the society on social and economic aspects. Genetically altered babies would bring about the concepts of babies as designer brands and products.

Maybe not far ahead in time we would have labs that would become big brands for they would produce babies with the most admired characteristics. So instead of babies being born naturally the parents would then focus on having the best branded baby. This might lead to babies being treated as products and the human connect in planning and delivering a baby that a mother and father have might disappear over time. There are a lot of religion based issues. Some religions and sects across the world do not encourage the thought of making changes to the reproductive process.

In instances, techniques like IVR for helping people have babies are also not encouraged. Amongst this backdrop, resistance to designer babies is strong. As recently as February 2007, Pope Benedict XVI spoke out against genetic engineering and other practices that allow people to select designer babies by screening for defective genome. He spoke about artificial insemination and PGD. He was citing that right to life was increasingly under threat with legalized abortion and euthanasia in developed countries.

The society at large might also not be able to adapt to the drastic changes that designer babies might bring to the society. People are resistant to change and most often than not wary of new things as they feel that they would do more harm than benefit. It is felt that if we innovate, there will be unforeseen dangers that we will not be able to cope up with. The opposition to reproductive techniques first found a credible voice in the form of the Catholic Church. However, these days the opposition to these techniques is also coming from the elite of the society.

They wish to encourage a more cautious approach to such techniques. They seem to raise concern over the unintended use of such techniques. The elite group comprises of the medical fraternity, women rights group and certain section of the highly literate. This new voice has given credence to the opposition which earlier was thought to be one sided and having a specific agenda in opposing technological advancements and their use in aiding parents to genetically modify the embryos. The regulatory bodies are also not doing enough to bring about a decisive debate over designer babies should be permitted or not.

In fact the regulatory bodies tend to hide behind existing legislations pointing out that only legitimate cases of genetic modification would be allowed for ensuring healthier babies. The definition of legitimate cases remains to be blurred though the regulatory bodies do assure that flood gates will not be open and the number of parents opting for designer babies and getting a go ahead will not increase exponentially. There is support that each request for genetic modification for having healthier babies should be screened by a regulatory authority.

Each case should be separately approved. Such approvals would ensure that parents are unlikely to abuse or discriminate against the designer child.

There would be difficulty faced by governments to prevent people to travel to different countries where designer babies might be possible to have. The fear is that genetic advancement if continues unabated would one day lead to a surge in designer baby numbers. Parents with means and organizations or governments with less moral regulations will enable the creation of designer babies in large numbers.

This is something that should be avoided at all costs. Genetic intervention should be allowed in cases where the parents desire a healthier baby but not for aiding the modifications of certain characteristics in a child. For there are ethical and moral reasons that justify that use of gene modifications to save or better someone's live. For living things have an essence that maintains the charm and respect for the natural reproductive process. Making alterations without understanding the consequences of designer babies would be similar to contamination by pollutants.