

# Assisted reproduction



A married couple wishes to have a child; however, the 32 year old mother knows that she is a carrier for Huntington's disease (HD). HD is a genetic disorder that begins showing signs at anywhere from 35-45 years of age. Its symptoms begin with slow loss of muscle control and end in loss of speech, large muscle spasms, disorientation and emotional outbursts. After 15-20 years of symptoms HD ends in death. HD is a dominant disorder which means that her child will have a 50% chance of contracting the disorder.

Feeling that risking their baby's health would be irresponsible, the couple decides to use in vitro fertilization to fertilize several of the wife's eggs. Several eggs are harvested, and using special technology, only eggs that do not have the defective gene are kept to be fertilized. The physician then fertilizes a single egg, and transfers the embryo to the mother.

Approximately 9 months later, the couple gives birth to a boy who does not carry the gene for the disorder.

- Is this a case of eugenics? “Eugenics” is defined as “the hereditary improvement of the human race controlled by selective breeding” (dictionary. om) Eugenics is a social philosophy which advocates the improvement of human hereditary traits through various forms of intervention. The purported goals have variously been to create healthier, more intelligent people, save society's resources, and lessen human suffering. Earlier proposed means of achieving these goals focused on selective breeding, while modern ones focus on prenatal testing and screening, genetic counseling, birth control, in vitro fertilization, and genetic engineering. (New World Encyclopedia)

Given this information this would be considered a case of eugenics. Would it be acceptable for the parents to select for sex as well, or should they only select an embryo that does not have HD? How would this be different? It would not be acceptable to select for sex. The selection should be used based on the presence or absence of the genetic trait that would cause harm. Pre-implantation genetic diagnosis (PGD) should be offered for 3 major groups of disease: (1) sex-linked disorders, (2) single gene defects, and (3) chromosomal disorders. (Medscape, 2012) None of the above would include the sex of the child. Is it ethical for this couple to have a baby when the mother could begin showing signs of HD when the baby is just a few years old? The woman has the right to determine if she is wanting and is going to be able to care for the child. In this particular situation there is a mother and a father present and if the mother should show signs of HD the father would assume responsibility.

- With this technology possible, would it be ethical for this couple to have a child without genetically ensuring it would not have the disease? What if we did not have this technology, would it be ethical for a known carrier to have a child? If not, how far should this carry? a carrier for cystic fibrosis (which is recessive)? ) Given that this technology is present it does not appear to be ethical for a couple to knowingly give birth to a child who will not only have the disease but could pass it on to future offspring. If the technology were not available, as was the case years ago, a known carrier would have to be well advised of the probability of having a child with the disease and would have to formulate a conscious decision to advance with their decision to procreate.

According to the Merriam-Webster Dictionary ethics is “ conforming to accepted standards of conduct. ” By this definition one could argue that a known carrier that chooses to have a baby is acting unethically. Carriers of recessive trait that hold a 25% of producing offspring with the trait would then also fall into this category. •Weighing everything we have discussed, do you believe the couple acted ethically? I believe that the couple acted ethically in the fact that they did not want to bring a child into this world knowing that there was a greater possibility of suffering that could come with his birth.

The author and advocate for client’s rights, Wesley J. Smith , stated. “ Some bio-ethicists see themselves as the creator of a new moral paradigm that will replace the archaic Judeo-Christian order as the philosophical underpinning of society. ” As individual men and women use the new reproductive technologies they are “ remaking nature, as they understand it. In doing so, they are creating a cultural shift in how people think about what is natural. ” The dilemma in this situation is the use of pre-implantation genetic diagnosis for the prevention of hereditary diseases.

New technologies give us powers over the human lifecycle both at its beginning and its end through the ability to prevent fertility or promote it, and to select or reject genetic criteria. Along with these powers come the threat of dehumanization and the potential of super-humanization. (Smith) The elements that place this situation in the realm of an ethical issue is the issue of procreation with a known disease and/or hereditary illness and the use of pre-implantation genetic diagnosis. Is it ethical to decide if a viable

fetus should be implanted or destroyed based on the presence of genetic malformations?

Is there a difference in this situation or the use of genetic screening while a woman is pregnant? PGD raises a number of scientific, ethical and policy issues. First, there are questions about the safety of the in vitro fertilization and embryo manipulation required for PGD and about the accuracy of the genetic tests that are used. Second, some find PGD, or its uses, morally unacceptable because it involves the creation, selection and destruction of human embryos. Third, there are questions of equity: many cannot afford PGD and it is not clear whether and to what extent health insurers will cover it.

Finally, there are broad ethical questions about the impact of PGD on family relationships, people living with disabilities, and society as a whole. (Baruch, Scott and Hudson, 2010) As per the Merriam- Webster Dictionary a dilemma is “ an argument presenting two or more equally conclusive alternatives against an opponent. ” Two main sets of ethical objections make PGD and proposals for its extension controversial. One set of objections arises from the need to create and then select embryos on chromosomal or genetic grounds, with the deselected embryos then are usually discarded.

Other objections concern the fact of selection itself. People who think that the embryo or fetus is a person will object to creating and destroying embryos, and oppose most uses of PGD. Others believe that pre-implantation embryos are too rudimentary in development to have rights. Under this view PGD is ethically acceptable when done for good reasons, such as preventing

offspring with serious genetic disease. Indeed, PGD may prevent selective abortions for those diseases. A second set of objections arises from the fact of selection itself, and the risks of greatly expanded future selection of embryos and children.

Dr Leon Kass has articulated this view and has argued that human reproduction is a 'gift' and that any form of selection or manipulation turns the child into a 'manufacture' and thus impairs human flourishing. (Kass, 2002) Mirriam-Webster defines principle as "a rule or code of conduct." In this situation the principles at stake are those of normal sexual reproduction. Should man be the sole decider of the characteristics of the unborn? Molecular biologists across the country are now in control of the knowledge and power to re-shape and control the world of life itself.

The new reproductive technologies create the opportunity for a handful of people to manipulate and change life. In 1974 Charles Frankel published an article entitled "The Specter of Eugenics". He contended, "a new theme has emerged to dominate the discussion of the moral and social responsibilities of medicine. It is not how to humanize medicine but how to re-engineer the human race." (Frankel) He cautioned that biomedicine has a hidden agenda that "reawakens the impulse to regulate and control, to suppress the unplanned, the random, the offbeat. (Frankel) In this particular case I do not foresee myself-as a nurse- having any personal issues in this dilemma.

A nurse- in general- would have to keep their biases separate from the wants and desires of the patient. As per the ANA the nurse has professional responsibilities and should recognize when one's own attitudes and values

related to genetic and genomic science may affect care provided to clients. The nurse should engage in reflective practice about one's own beliefs and values related to client care that integrates genetics and genomics.

The nurse should also articulate one's attitudes, values and beliefs that influence one's perspective about difficult genetic or genomic healthcare decisions. (ANA, 2012) In this particular situation two ways that the dilemma could be resolved is by understanding the use of pre-implantation gestational diagnosis for the reduction of producing offspring with chromosomal defects; and by respecting the patient's choice to participate in the above by advocating for clients' access to desired genetic/genomic services and/or resources including support groups.

According to a study by the Loyola Marymount University (2009) the steps included in solving an ethical dilemma include asking the following: " What are the options? "; " What are the consequences of these options? "; " What actions will occur as part of the options? "; Make a decision and stand by it; and evaluate the system. •What are the options? Think of every possible course of action that is available. •What are the consequences of these options? Who is this going to help/hurt? What are the short/long term implications of the actions? •What actions will occur as part of the options? Analyze the actions.

How do the options measure up against moral principles like honesty, fairness, equality, and recognition of social and environmental vulnerability? In the case you are considering, is there a way to see one principle as more important than the others? •Make a decision and stand by it. Act on your

decision and assume responsibility for it. Be prepared to justify your choice of action. No one else is responsible for this action but you. •Evaluate the system. Think about the circumstances which led to the dilemma with the intention of identifying and removing the conditions that allowed it to arise.

The authority that makes ethical decisions appropriate in the nursing field will be organizations such as the Texas Board of Nursing and the American Nurses Association. The philosophy of the Texas Board of Nursing is “ Acting in accordance with the highest standards of ethics, accountability, efficiency, effectiveness, and openness, the Texas Board of Nursing approaches its mission with a deep sense of purpose and responsibility and affirms that the regulation of nursing is a public and private trust. ”