

## Creating Boundaries in the Sperm Donation Industry: A Study of Bioethical Qualifiers in the Donation of Human Sperm

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While sperm donation has become a common and effective practice amongst many who suffer from the inability to conceive naturally, the practice's bioethical implications may reveal a necessity to place qualifying constrictions on the practice. Some examples of related ethical issues range from psychological impacts on offspring as a result of partial genetic dissociation from parents, and discriminatory practices, such as “shopping” for traits or narrow descriptions of optimal sperm donors. Regulations for eligible donors vary in different regions, while keeping *some* sort of uniformity through criteria, including height, weight, education, and lifestyle choices. This piece highlights some of the major cultural differences between China and the USA in regard to the regulation of sperm donation. Recently in China, after the “one-child only” policy was lifted, there is an increasing demand for sperm donors now than ever, but with new policies, it is even more difficult to donate and purchase sperm. Due to donors not being able to qualify for the “amount of patriotism” needed, there is an increased use of underground operations, such as the black market. These operations are often unsafe and have no regulation, encouraged by donors and middlemen solely seeking monetary value.

## Background

In the twentieth century, there has been a rapid advancement in technology, causing numerous innovative ways for one to now have a child. Reproductive facilities with third-party donors have helped a number of infertile people both mentally and physically, by giving them a chance to have a child. With these advancements in technology and medicine, having a child is now becoming a reality for those previously unable to reproduce through traditional means, with one of the more recent methods being sperm donation. Sperm donation refers to the procedure where a man donates his semen — “the fluid containing sperm that is released during ejaculation — to help an individual or a couple conceive a baby” (“Sperm Donation,” 2020). When kept in a proper environment under certain conditions, sperm can be inserted into a woman’s reproductive organs directly or it can be used to fertilize eggs through a method called in vitro fertilization (IVF). The average restrictions for a sperm donor vary across nations, but in the USA, they include being taller than 5’8” and matching a healthy weight according to height, enrolled in or having completed post-secondary education, legally allowed to work in the US, and are between a certain age range, normally from 18-40 years of age (“Sperm Donor Requirements,” 2018). Racial diversity and a variety of hobbies are encouraged, while smoking/drug use, etc. are not. These standard regulations are there to ensure a generally healthy and educated male to appeal to the clients of these sperm banks. Many other countries share similar criteria for sperm donors, to ensure that clients have an “attractive” pool to choose from.

## Advantages and Disadvantages

Sperm donations have numerous positive and negative impacts relating to both the donors and clients. The clients who reap the maximum benefit from this donation process are mainly those who are single women, homosexual, and/or those struggling with infertility or genetic defects. The most known reason for sperm donors is mainly to help lesbian couples if they wish to have a child through means of childbirth over adoption, but this could also apply to single women attempting to conceive a child (Freeman et al., 2016). In terms of heterosexual couples, many of them are unable to produce children due to male infertility and genetic defects. There are numerous reasons that contribute to infertility, including past surgeries, damage to the genitalia, or even a low sperm count (“How common is male infertility,” 2016). On the other hand, if the male has genetic defects and is wary of potentially passing these “defective genes” onto his child, a sperm donor can be of great help. Since sperm donations give these

various groups of people an opportunity to reproduce through childbirth and pass on their genes, this method is significantly more appealing than other means such as adoption, where this wouldn't be possible. Adoption has become increasingly difficult nowadays through random house checks, thousands of dollars spent, an overabundance of paperwork, etc. and some would rather have their own genes passed along, making it less appealing to adopt ("Understanding adoption," 2001). Regardless, while the process of sperm donors is so seemingly appealing because of the relation between the offspring and mother, and creating the option for those who were previously unable to naturally conceive to follow the traditional childbirth route, having babies through this third party method can be problematic due to the ethical arguments surrounding it. This is mainly attributed to the extensive guidelines that sperm donors must abide by in order to donate their sperm.

### Ethical Issues

Although sperm donation is becoming more and more popular, there are still a number of ethical problems surrounding this topic. With sperm donations, the identity of the donor is usually kept anonymous, and the clients are unable to learn the identity of the donor. Sperm donation is an anonymous process, where certain traits of the donor are specified to make the sperm more appealing for purchase, but the donor is free of responsibility to the biological offspring produced by the sperm (Brandt, Wilkinson, and Williams 2017). In fact, men are not given any information regarding their sperm after donation including potential offspring they have, so there is no chance of responsibility assigned to the father. However, a major issue with this practice is the hardly acceptable solution, of complete separation between biological and social affiliation. There is a "genetic dissociation between husband and offspring that results in psychological stress, as well as ethical and existential dilemmas for the couple" (Nikolettos, 2003). On the other hand, this trade-off is overlooked because the couple is able to produce offspring with *some* genetic relation, and females have a less dramatic separation. The genetic dissociation is only partial, and the term of pregnancy generally creates and ensures a strong biological and physical bond between the mother and child. Regardless, due to numerous regulations and processes prior to the purchase of sperm, the client must also acknowledge that they are fully responsible for the offspring conceived by the use of this third-party specimen and are not to include the donor in future issues (Cohen et al., 2016, p.468-88). While being able to pick traits seen in various specimens ensures commitment from both parents to the offspring, there is a major argument concerning the

basis of which people choose sperm and whether the practice is considered ethical.

Since sperm donors are graciously compensated for their contributions, there is often a wide range of choices in sperm for recipients to select from, especially in the USA. Sperm donation banks extensively outline the qualities of their “exclusive” donors which include being a college graduate, having a certain height, having solely females as their sexual partners, and more (“Sperm Donor Requirements,” 2018). Due to the wide range of viable sperm to choose from, critics consider this “shopping for traits” since recipients take their preference of sperm based on race, intelligence, appearance, and lifestyle (Gong et al., 2009). However, picking a set of genetic information they want for their children to own is considered unethical as it gives recipients a chance to “construct” a baby of their choice. Choosing certain traits can lead to a slippery slope of eugenics. Eugenics refers to the science of removing “bad” traits from a population (through abortion/involuntary sterilization/etc.) and adding more “good” traits into a population (i.e. through genetic testing and selective reproduction). Removing bad traits and adding good traits are referred to as negative and positive eugenics respectively. This science is used to protect the “superior” race and continue proliferating children who have these certain “superior” traits and restrict “undesirables” from being born. Terms, including “mental hygiene, racial hygiene, social hygiene, and racial and human betterment became prevalent” and regions became “a hotbed of racial purists striving to protect their master race” and rid all chances of procreating an undesirable (Grenon, 2014). This idea of characterizing certain traits/values as superior/inferior is a major violation of bodily integrity and is a potentially risky decline into practicing eugenics.

Often, the easiest way to construct a baby of one’s choice is through producing a plethora of embryos with in vitro fertilization (IVF) and combing through the genomes of each of them to pick the most “desired” genome. In its current form, IVF is unpleasant and expensive. So, those who would be able to choose their babies and pass on their “superior traits” would be only those who could afford to. As a result, these economic disparities may shift to genetic disparities “with social distinctions delineating enhanced individuals from unenhanced individuals” (Ly, 2011). Choosing an offspring's traits would therefore be limited to the wealthy individuals, and often the traits they choose against, are more costly to maintain/fix (i.e. disability). If more families were to select against genetic disabilities after performing costly genetic testing, there would be detrimental effects to the currently disabled population (Grenin, 2014). It would severely reduce the medical

research committed to finding cures and fixes for disease/disabilities, decrease the social support and disability-friendly resources available, and would shrink the existing community into mere “undesirables.”

### Cultural Barriers

This concept of positive eugenics or picking the “better” qualities is defined differently throughout various cultures. In this paper, we will focus on sperm donation and the effects of this costly method on those in China. China is of particular interest because of the extremely rigid procedures they have in place, differing from other countries, especially the USA.

All sperm banks in Chinese are licensed by the Chinese government and have a very strict set of rules regarding who can donate sperm, the process of them donating, and the upkeep of the sperm while they are in storage. For the USA however, as there is no national registry, donors could in theory donate numerous specimens at every cryobank in the area, which poses a unique set of risks. In the USA, donors are not always vetted properly, and are not as meticulously maintained as say, Chinese sperm banks. The USA’s guidelines regarding maintaining the aforementioned “exclusivity as donors” is highly promoted, yet poorly maintained. Donors do not necessarily need to bring in copies of their college degrees, and it is not always feasible to obtain a letter from the boss stating their actual position held in their workplace to prove their occupation (“Gamete,” 2017). Additionally, many of these cryogenic labs do not test for common (or rare) genetic diseases. While inexpensive testing companies such as 23andMe can easily test for some of these diseases, much of the “proof” that USA’s sperm banks ask for is reliant on what the donor chooses to report. The rules in the USA regarding sperm donation is based on recommendation, rather than regulation.

In comparing the two countries, China and the USA seem to be at different ends of the spectrum, regarding the regulations around sperm donation. China’s standard protocol for sperm donation “was initiated in 2001 by the Chinese Ministry of Health” (Ping, 2011). While this protocol and the general guidelines were referenced from other countries, certain details of China’s human sperm banking protocol differ significantly. For example, “sperm donation is completely anonymous, only donors between the ages of 22 and 44 years are eligible for selection, donor sperm cannot be provided to single women or same-sex couples, and each sperm donor can only impregnate up to 5 women *via* AID or *in vitro* fertilization” (Ping, 2011).

“Who” the sperm can help is completely different in China versus other countries. Most other nations encourage sperm

donation to couples/individuals who “need” it more, specifically single women and same-sex couples, whereas China prohibits it.

In terms of enforcing anonymity and limiting single-sperm distribution, many countries share similar ideas, but the ratio and rationale slightly differ. While China allows each donor to only “impregnate” five women through IVF, the American Society for Reproductive Medicine (ASRM) “recommends a limit of 25 children per population of 800,000 for a single donor” (Gong et al., 2009). The importance of limiting offspring from donors is to prevent potential consanguinity as accidental consanguineous conception could easily occur due to the high volume of offspring resulting from a single donor (Serre et al., 2014). Due to the anonymity of the donors, most offspring will be unaware of their biological kinship, leading to potential complications if they choose to reproduce with those sharing a common ancestor. These complications include both psychological and punishable problems. By law, these relationships are defined as incest, an issue “which causes harm of an identifiable kind which is proper subject for criminal prohibition” as incest is illegal in most regions (Hughes, 1964). While this is relevant, cases relating to incest in the context of sperm donors are minimal because of anonymity and therefore not often caught. But there are additional issues caused by a relationship between those sharing a common close ancestor as this inbreeding “accentuates the recessive traits of both parents” (Hughes, 1964). On top of the consanguineous conception issues, the limit of offspring per donor is probably attributed to population control in China, something that can be considered a cultural barrier – a barrier that’s not as present in other countries. The “one-child policy” in China has been lifted, but not completely eradicated due to the lasting emphasis of population control in China.

### Sperm Donation Eligibility in China

The practice of sperm donation has been prevalent for many years regardless of its ethical barriers, but the demand for sperm specifically in China has “skyrocketed since the end of the one-child policy in 2015” (Rojas, 2018). However, the stringent screening procedures and guidelines for eligibility make it exceedingly tough for sperm donors to qualify. In China, “the screening criteria for semen parameters are much higher (threefold) than those recommended in the World Health Organization laboratory manual” causing “48.1% of candidate sperm donors” to be disqualified from donating their sperm (Ping, 2011). With COVID-19, numerous health facilities have reported over 50% drops in sperm donor volunteers, with only 20-25% of those volunteers being eligible sperm donors (Tan, 2020).

Regardless, Chinese sperm banks are not making it any easier for volunteers to donate their sperm to match up to the increasing demand for sperm. On top of the strict guidelines regarding age, health, intelligence, etc. China has taken it a step further and has somehow made it even harder for volunteers to participate in sperm banking. Recently, a Chinese sperm bank at Peking University clarified, “Only men with an abiding love for the socialist motherland need apply” (Hernández, 2018). The basis upon which donors may donate sperm has always been to minimize potential physical problems in other’s offspring, but this recent regulation for this Chinese sperm bank has blown this concept out of proportion. This ad was explicitly mocked on social media, where people would make sarcastic comments such as “love for the country and the party starts from sperm,” but President Mr. Xi saw it as an effort to blend science with ideology (Hernández, 2018). There has always been a key emphasis on extreme patriotism for the country, and Mr. Xi has continued this “drive to restore the Communist Party’s place at the center of everyday life in China [by bringing] socialist banners to city streets, nationalistic rap music to the airwaves, and patriotic heroes to movie theaters” (Hernández, 2018). These regulations are now his inspiration to test party loyalty through means of reproduction, essentially starting the love for the country from the moment of ejaculation. Regardless of sperm donation skyrocketing since the one-child policy was lifted, these strict policies implemented have led to even further donor shortages because many men can’t prove their patriotism to the extent that Mr. Xi expects them to. In fact, in a study done comparing restrictions on sperm donors in various countries, they recommended that the donors’ age in China should be even further lowered due to the increasing need of donors in the country, to potentially attract a larger donor base (Gong et al., 2009). This extreme need by the government to instill this communist ideology in younger generations has resulted in backlash from citizens, and a major issue with the supply and demand chain of sperm as there are not enough eligible donors to compensate for the increasing supply.

#### Under the Table Work

In larger Chinese cities, over 10,000 couples hope to receive sperm so they can start in-vitro fertilization (IVF) and conceive. While there are numerous reproductive centers, given the rigorous guidelines, the average wait time for receiving sperm and “therapeutic donor insemination at these centers is 1.5–2.0 years, a wait time that has caused some couples to abandon their plans for [in vitro fertilization]” or look to “non traditional methods” of conceiving (Ling 2011).

This striking gap of donor supply and recipient demand has led to plenty of black-market operations in this reproductive market. In fact, these black-market operations could even be seen as red market operations, where the compensation to donors and issues with regulated clinics are major factors leading to covering up genetic abnormalities/inheritable disorders in donation. In “The Red Market,” author Scott Carney outlines a situation where a blood seller was “willing to sell allegedly HIV-infected blood to a passerby as long as he made a small amount of cash” (Carney, 2019, p.165). The greed from these middlemen as well as donors overpowers the initial altruistic system and in this case, leading to potential epidemics and clients being worse off than they were before. Because of the extremely specific restrictions for sperm donors and the lengthy process to purchase sperm through established institutions, there are currently underground operations with plenty of sperm donors ready to be generously compensated for their help. Both the donors and the middlemen easily manipulate the system, as both are desperate for monetary gain. The donors may not necessarily be healthy and may deal with multiple issues, including obesity, genetic defects, diseases, or STDs, but because of the vulnerable clients in need of a donor, they often compromise.

To make black market operations more efficient, there have been newer developments to ensure this underground business goes smoothly. Since the sperm needs to be kept at optimal temperatures to stay viable, machines have been created in the Chinese black market where “donors can watch porn and have simulated intercourse with the machine,” which will then preserve the sperm in controlled environments (Sha, 2012). Regardless of attempts to keep the sperm in certain environments, the artificial injection of the sperm into the women is not always optimal as it is done by middlemen or the donors themselves, both people lacking medical experience. Essentially, the only way out of this unsafe and problematic situation is to convince institutions to donate/loosen regulations for donors as cracking down on the sperm black market is seemingly impossible.

### Conclusions

Sperm donation possesses a variety of advantages and disadvantages. While it helps individuals or couples unable to produce healthy offspring still able to partially pass on their genes, there are a number of ethical issues surrounding the current practice. These ethical issues range from psychological to physical to cultural barriers that affect both the offspring and the parents of the children. There are a number of regulations forcing sperm donors to fit a certain archetype, such as possessing a specific



height and weight, living a certain lifestyle, and having a certain level of education, but now in China, with the added restriction of having to be a “committed follower to the motherland,” there are increasing black and red market operations. There is a shortage of donors due to not enough being eligible, yet an increasing demand from clients, and the underground operations to get around these restrictions pose further barriers and issues. A chance for reassessment regarding the eligibility of these donors to ensure an adequate number of donors to fit the demand, as well as discussing ethical issues may be beneficial in improving the ethicality, safety, and fairness of this practice.

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