

Philosophy of organ donation: Review of ethical facets

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Abstract

Transplantation ethics is a philosophy that incorporates systematizing, defending and advocating concepts of right and wrong conduct related to organ donation. As the demand for organs increases, it is essential to ensure that new and innovative laws, policies and strategies of increasing organ supply are bioethical and are founded on the principles of altruism and utilitarianism. In the field of organ transplantation, role of altruism and medical ethics values are significant to the welfare of the society. This article reviews

several fundamental ethical principles, prevailing organ donation consent laws, incentives and policies related to the field of transplantation. The Ethical and Policy Considerations in Organ Donation after Circulatory Determination of Death outline criteria for death and organ retrieval. Presumed consent laws prevalent mostly in European countries maintain that the default choice of an individual would be to donate organs unless opted otherwise. Explicit consent laws require organ donation to be proactively affirmed with state registries. The Declaration of Istanbul outlines principles against organ trafficking and transplant tourism. World Health Organization's Guiding Principles on Human Cell, Tissue and Organ Transplantation aim at ensuring transparency in organ procurement and allocation. The ethics of financial incentives and non-financial incentives such as incorporation of non-medical criteria in organ priority allocation have also been reviewed in detail.

Key words: Transplantation; Ethics; Organ donation; Incentives for donation; Organ trade; Presumed and explicit consent

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Core tip: Transplantation ethics is philosophy that involves systematizing, defending and recommending concepts of right and wrong conduct related to organ donation. As the demand for organs increases, it is essential for the society to ensure that new and innovative laws, policies and strategies of increasing organ supply are bioethical. In the field of organ transplantation, role of altruism and medical ethics values are significant to the welfare of the society. This article reviews the fundamental ethical principles to prevailing organ donation consent laws, incentives and policies.

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ALTRUISM

Organ donation is founded on the pillars of altruism. When the moral value of an individual's actions are focused mainly on the beneficial impact to other individuals, without regard to the consequences on the individual herself, the individual's actions are regarded as "Altruistic". Auguste Comte^[1] coined the word "Altruism" (French, altruisme, from autrui: "other people", and also derived from Latin alter: "other"). He was the French founder of positivism and described his views in *Catéchisme Positiviste*^[2], where living for others was "Altruism". Altruism can be classified into two types- obligatory and supererogatory. Obligatory altruism is defined as a moral duty to help others. *Supererogatory* altruism is defined as morally good, but it is not morally required-going "above and beyond" one's duty. The act that maximizes good consequences for all of society is known as utilitarianism^[3].

Altruistic behavior and happiness are reciprocal in nature. In fact, neuroscientists have found neural bases for altruism^[4]. With functional magnetic resonance imaging, it has been shown that the subgenual cortex/septal region, which is intimately related to social bonding and attachment, gets activated when volunteers made altruistic charitable donations^[4].

The opposite of altruism is egoism^[5]. Egoism is the sense of self-importance. Psychological egoists claim that each person has his/her own welfare on their priority agenda. Some form of self-interest, such as intrinsic satisfaction, ultimately motivates all acts of sharing, helping or sacrificing. Other motivating criteria are expectation of reciprocation, and/or the desire to gain respect or reputation, or by the notion of a reward in life after death.

MORAL OBLIGATIONS

Ethically, doctors are professionally responsible to adhere to medicine's unique moral obligations. The Hippocratic tradition is the origin of several tenets of medical ethics. One of them is the commitment to nonjudgmental regard. Health professionals are professionally responsible to render care to patients without being affected by any judgment as to the patient's worthiness^[6].

Another medical ethical tenet is *Primum non nocere* or "first, do no harm". This principle is clearly embodied in the Hippocratic oath for physicians. This principle of non-maleficence is the most serious ethical concern in living donor transplants, due to the potential of doing medical harm to the donor. Many donors experience significant pain and short-term disability. The risk of surgical complications in living donor surgery is 5% to 10% risk and the risk of death is 0.5% to 1%^[7].

A doctor has a duty of beneficence that constitutes a professional obligation to benefit patients, placing their good before his or her own. Fiduciary responsibility encompasses use of knowledge, powers, and privileges for the good of patients^[6]. This is the essence of medicine's fiduciary responsibility and commitment to beneficence.

DEATH AND ORGAN RETRIEVAL

Prior to the establishment of brain death criteria in 1968, the main source of grafts was donation after cardiac death (DCD)^[8]. Thereafter, donation after brain death (DBD) soon became as the leading source of organs mostly due to the improved graft quality and potential for multiple organs. However, due to organ shortage, there was a renewed interest in cardiac/circulatory death. The potential for Donation after Circulatory Determination of Death programs is enormous. It is a very effective way to increase the grafts pool in both, adult as well as pediatric population^[9]. A critical pathway for deceased donation, both DBD and DCD, was developed in 2011^[10].

In 2012, a statement on Ethical and Policy Considerations in Organ Donation after Circulatory Determination of Death was structured^[11]. Determination of death can be made after the cessation of circulation and respiratory function for 2 min. Underlying ethical principles considered were: (1) acts that promote the opportunity to donate viable organs respect the patient's potential interest in becoming an organ donor; (2) the legitimacy of surrogate decision making for critically ill patients whose wishes are unknown extends to decisions regarding organ donation; (3) if real or perceived conflicts arise between the goals of providing optimal end-of-life care and the goals of procuring organs, delivery of quality end-of-life care should take priority. The dead donor rule emphasizes that the recovery of donated organs shall not cause the donor's death.

PRESUMED CONSENT

World Health Organization (WHO) defines presumed consent as a system that permits material to be removed from the body of a deceased person for transplantation and, in some countries, for anatomical study or research, unless the person had expressed his or her opposition before death by filing an objection with an identified office or an informed party reports that the deceased definitely voiced an objection to donation^[12].

Implicit consent^[13] is consent without some specific move denoting consent, and inaction is itself a sign of consent. An example would be when the chairperson of a board meeting announces a motion carried unless there are any objections. It is important to emphasize that implicit consent is still real or actual. Those attending the meeting are aware that their silence will be inferred as consent, unless they specifically object^[14].

Many ethicists believe that actual consent is not essential for organ donation^[15]. The default position should be that one would want to donate organs as it is for the good of the society^[16]. They also believe that it is immoral for an individual to decline consent for donation of his or her organs^[13].

Presumed consent was first introduced in Spain by law in 1979. Spain has the highest deceased donation rate per million populations (35.3 p.m.p. in 2011)^[17]. However, Organizacion Nacional de Trasplantes (ONT), Spain's governing transplantation organization, confers this success to its "Spanish Model" rather than its legislation^[18,19]. Success factors of the Spanish Model include its legal approach and a comprehensive program of education, communication, public relations, hospital reimbursement, and quality improvement^[20,21]. Intensive care unit doctors or anesthesiologists work part-time as in-hospital transplant coordinators^[22]. The hospital pays them bonus salaries for organ donations they undertake^[23]. The Spanish ONT explicitly denies that this factor alone causes the success seen in Spain^[24,25]. This model differs significantly from that in the United States where transplant coordinators are part of the Organ Procurement Organizations (OPO).

In Spain, there is no national non-donor registry^[21]. Approximately nineteen of twenty-five nations with presumed consent laws have some provision for individuals to express their desire to be an organ donor^[22]. However, health professionals in only four of these nations (Belgium, France, Poland and Sweden) acknowledged that they do not override a deceased's expressed wish if the family objects^[22]. A de facto family veto is significant to the choice between consent processes in cases where opt-in and opt-out schemes have a different after-effects on families subsequently vetoing organ removal^[26,27]. If the family vetoes, then the opt-out case becomes much weaker.

Some ethicists feel that a duty to donate or feeling of obligation to the society aids transition from presumed consent to conscription for organ donation^[28]. In the conscription model, every individual is under compulsion to donate organs^[29]. The individual's body and organs are owned by the State. However, such a model may not be compatible with democracy, as it is recipe for totalitarianism^[30]. Totalitarianism is usually portrayed by the coincidence of authoritarianism, *i.e.*, state decision-making and ideology are not framed by the ordinary citizens, *i.e.*, a pervasive scheme of values are announced and promoted by institutional means to control and direct all aspects of life^[31].

Though presumed consent laws have been accepted in Spain and other European nations, they have been consistently rejected in the United States. Presumed consent has been considered in the United States, but not beyond initial considerations. The Ethics Committee of the United Network for Organ Sharing (UNOS) developed a white paper on presumed consent in 1993^[32] and repeated those findings in 2005. It noted there was no clarity whether a large proportion of the

population was primed for this type of system. At least three states, Delaware, Colorado, and New York, have considered modifying their laws to presumed consent stances (Nytimes.com 2010), but these efforts quickly fizzled out.

EXPLICIT CONSENT

WHO defines explicit consent is defined as a system in which "cells, tissues or organs may be removed from a deceased person if the person had expressly consented to such removal during his or her lifetime"^[12].

Explicit consent policies require an individual to "opt-in" by proactively stating their wishes to be a donor such as signing a donor card or clearly accepting a donor status on a driver's license. Any person 16 years age and above, may consent, in writing with a signature at any time. Verbal consent is also permissible in the presence of a least two witnesses during the person's last illness. The consent has to specify that the person's organs can be used post-mortem for therapeutic purposes, medical and scientific education or research^[33].

Explicit consent is recorded as advanced directives on state registries, by the issue of donor cards, and on the driving license. If one does not explicitly consent to donate on the form, the default setting is that one has not consented at all. Many people, however, do not record their decision to donate. Unfortunately, many organs are buried rather than donated. This is because potential donors and their families believe that the organ distribution system is unfair and potential donors may receive less aggressive medical care^[34]. In the United States, African Americans, Catholics and Hispanics are less likely to be registered as organ donors^[35].

Issues with registering explicit consent at the Department of Motor Vehicles (DMV) include inertia and people's predictable bias towards choosing options that require least effort where they are just trying to complete the license application process^[36]. Most people find the DMV to be either stressful or simply an unpleasant place to be. After waiting for a long time to be seen, it is easy to become tired, eager to leave, anxious, frustrated, and even angry^[37]. Some, rationally or not, may fear that they might bring about their own death through a motor vehicle accident by deciding to donate at the DMV. Individuals are isolated from connections to family members and other trusted and beloved people whom they would want to be present when making an important decision regarding their death^[38]. Even when people do opt in by checking off "donor" on their driver's license, OPOs will often follow the negative wishes of the family of the deceased, overriding a recorded decision to donate^[36,39].

However, by the end of 2013, with increasing awareness and education, 117.1 million people in the United States enrolled in state donor registries. This represents 48% of all United State residents age 18 and over^[40].

Donate Life Statistics state that 76% of Australians have pointed out that they are willing to become organ and tissue donors^[41]. In 2013, the Australian donor rate was 16.9 donors per million people^[41]. The Australian organ donation outcome in 2013 was 10% higher than in 2012^[42]. If the family is aware that the deceased was likely to consent to organ donation, then they are more likely to donate. Ninety-three percent of Australians stated that they would certainly endorse their loved one's wishes if they knew what the wishes were^[41].

ORGAN TRADE

In the United States, Anatomical Gift Act and the National Organ Transplant Act of 1984, prohibit the buying and selling of organs^[43,44]. Unfortunately, illegal organ trade and transplant tourism still persist in many other countries despite many laws made and enforced against it^[45]. The organ vendors are promised paltry sums of money, and they are frequently deceived out of some of the procurement fee. The surgery for organ procurement and the post-transplant care is often substandard^[46,47]. Paid vendors experience social stigma for having sold a part of their body as well as emotional and physical damage^[46,47].

If a person owns her body, then she has the right to autonomy, *i.e.*, to sell her body parts. Limits on autonomy are placed to protect individuals from themselves. A good example would be that we do not allow individuals to be slaves so that the moral dignity of the individual is preserved^[48]. Additionally, it be possible that the individual is acting involuntarily or is being coerced due to circumstances that are unfair^[49]. Respect for autonomy^[50] permits one to question an individual's decision when it is against the individual's best interest. An individual may make a decision that is contrary to his or her own interest due to miscalculation, coercion, undue influence or simply misinformation. Though the organ vendor harms himself, and this harm is not inflicted on others, we as a human society, place ourselves in a substandard position, if we allow vulnerable persons to sell their body organs on the grounds of commodification^[49].

Transplant tourism results in corruption, coercion and crowding out^[51]. It enhances corruption by allowing the sale of organs to go forward in that it may "dehumanize society by viewing human beings and their parts as mere commodities"^[52]. Crowding Out occurs by allowing the sale of organs which will cause individuals who would have donated organs to instead sell them, thus reducing the number of donated organs, or it will cause individuals to refuse to donate at all, leading to an overall reduction in procured organs^[53]. Organ brokers or recipients often coerce poor sellers, who have no other reasonable economic alternative, to sell their organs^[54].

In May 2008, The Transplantation Society and the International Society of Nephrology convened an international summit meeting on organ trafficking and

transplant tourism in Istanbul. More than 150 professionals from 78 countries attended this meeting. The text of the Declaration of Istanbul (DoI) on Organ Trafficking and Transplant Tourism was published simultaneously in "Transplantation", and "The Lancet". In 2010, the World Health Assembly updated WHO's guiding principles on human cell, tissue and organ transplantation to add principles aimed at vigilance and safety in transplantation and at ensuring transparency in organ procurement and allocation^[55].

Several professional and governmental bodies voluntarily adhere to the principles of the DoI and WHO. The DoI and WHO guidelines have also been incorporated into national laws and regulations^[56]. In 2008, the Government of India amended and fortified its Transplantation of Human Organs Act^[57]. In Philippines, Anti-Human Trafficking Law was launched in June 2009^[58]. Pakistan and Egypt also passed similar laws in 2010^[59,60]. Latin American Society of Nephrology^[61], and the Society of Transplantation of Latin America and Caribbean, have endorsed the DoI^[61,62]. In 2012, Brazil specifically mentioned the DoI in its national regulations^[63]. UNOS policy based on the DoI requires all non-United States citizen transplant waiting-list registrants to specify whether the United States is their primary place of residence or whether they have come to the United States for the purpose of transplantation or any other reason^[64].

PRISONERS AS ORGAN DONORS OR RECIPIENTS

The United States Constitution's Eight Amendment states that inmates have a right to healthcare. Some argue that prisoners are less deserving for consideration as transplant recipients. Many contend that it is a poor use of a limited resource, since a prisoner, whose life is saved by transplant, may re-enter a life of crime. Should a prisoner's right to transplant depend on the nature of the crime or the terms of his/her incarceration-such as white-collar crimes against capital crimes, or first time offenders vs repeat offenders?

Donation benefits both prisoner as well as society by compensating for crimes against society. It would give the prisoner an opportunity to prove to himself and others that he can do something worthwhile. On the other hand, prison environment may prohibit free and voluntary consent. Reduction of sentence for organ donation could be misused as a form of coercion. It may be more acceptable if the decision to donate was made before the prisoners conviction and that the organs to go the recipient *via* UNOS matchlist. But then, would the recipient agree to accept the organs if he/she was aware that the donor was a prisoner on a death row sentence? In April 2011, MSNBC news conducted a survey in which almost 80% of 86736 voters responded "yes" to the question, "Should death row inmates be allowed to donate their organs?"^[65]. Patients would

appreciate it, *e.g.*, Patients on Dukes Lung Transplant List were asked whether they would accept lungs from a death row inmate if the organ was good, and 75% replied in the affirmative^[65].

FINANCIAL INCENTIVES

The UNOS Ethics Committee defines financial incentives as any material gain or valuable consideration obtained by those directly consenting to the process of organ procurement, whether it be the organ donor himself (in advance of his demise), the donor's estate, or the donor's family^[66].

Financial Incentives can be direct or indirect. Regulated organ sale, tax credits, *etc.*, are some of the direct financial incentives. Reimbursement for funeral expense, life and disability insurance are some indirect financial incentives^[67]. For living donors, incentives could include: tax credit, long-term health care, tuition or job training; employment; or payment^[68]. The convention on human rights and biomedicine of the Council of Europe has favored compensation for donor expenses incurred^[69]. This has also been supported by the World Medical Association^[70] and the WHO^[12]. Several United States states have passed legislations that provide paid leave to organ and bone marrow donors. The laws also offer tax benefits for live and deceased organ donations and to employers of donors. However, a study stated that these provisions did not significantly impact the quantity of organs donated^[71].

Some believe that financial incentives will increase the supply of organs. A form of "donor insurance", has been suggested. In this method, a person agrees in advance to organ donation after his or her death. Payment is made to his beneficiaries or his estate after the donation^[66]. Financial incentives are also rationalized based on whether they pertain to obligatory or supererogatory altruism. To charge money for one's organ would be wrong if an altruistic kidney donation were morally obligatory. On the other hand, if altruistic donation were supererogatory, then to charge money for one's organ would not be wrong. Rather, demanding money would be non-supererogatory. It would be categorized as perhaps not good, but not wrong, and morally permissible^[72].

Decreased emotional gain for the donor family, decreased respect for the sanctity of the human body and life itself, and a loss of the personal touch that currently exists in the altruistic donation process are some of the reasons cited for opposing the provision of financial incentives. There is also a fear of creation of organ markets where the poor would be harvested for the rich. Financial approaches to organ donation may start "the ultimate slide down the slippery slope" - *i.e.*, the human body actually becoming a commodity to be bought, sold and exchanged for in a manner similar to any other good or service^[66].

Financial incentives are officially permissible in Iran. A controlled living unrelated kidney donors (LURDs)

transplant program has been initiated. If the patient has no living related donor, she is referred to The Kidney Foundation of Iran to find a suitable LURD. The Iranian Society of Organ Transplantation monitors this program to ensure that there is no broker introducing donors to recipients, nor there is any transplant tourism^[73]. In Iran, this program has been effective in reducing the kidney transplant waitlist^[74]. The kidney donors register in the Dialysis and Transplant Patients Association. After the donation, they are rewarded with the equivalent of \$ 1200 United States dollars and 1 year of medical insurance by the government^[75].

In Philippines, from 2002 to 2008, a regulated system of incentives for living organ donors was implemented^[76]. The program offered a sizable "gratuity package". Transparency, ethics, monitoring of transplant facilities and maintaining a donor registry was mandated. Unfortunately, the intended outcomes differed from reality. The black market was not eliminated and organ brokers or middlemen continued to be involved^[77].

In 2010, China launched a financial incentives compensation policy in five pilot provinces and cities. Two forms were considered for financial compensation. The "thank you" form expresses gratitude on behalf of the Red Cross Society of China for subscription to organ donation. The "help" form is social welfare support for underprivileged families^[78]. This initiative has been criticized due to involvement of an extremely vulnerable group. Additionally, there was no public campaign to endorse social change making this new initiative ethically objectionable^[79].

In 2012, The Working Group on Incentives for Living Donation developed guidelines for development of a regulated system of incentives for living and deceased donation. These guidelines state that each country should have a regulatory and legal framework for implementing incentives and the entire process must be transparent and overseen by international and governmental authorities^[68].

NON-FINANCIAL INCENTIVES

The Israeli Organ Transplant Law is a novel approach to increase supply of organ to meet the escalating demands. Historically, Israel's organ donation rate was very low. Jewish law condemns violation of the dead. This has been interpreted that Judaism prohibits organ donation. Rabbinic issues surrounded the concept of brain death. Thus, many patients died waiting for organs. But in the Talmud, saving a life supersedes almost everything. Many commandments may be overstepped if saving a life is the goal. Therefore, it could be argued that organ donation actually fulfills a very high religious virtue^[80].

So Israel decided to implement a new approach and became the first country in the world to incorporate "nonmedical" criteria into the priority system based on medical criteria. In 2008 two new laws relevant to organ transplantation were introduced. The Brain-

Respiratory Death Law defines the precise circumstances and mechanisms to determine brain death. The Organ Transplantation Law bans reimbursing transplant tourism involving organ trade. Registered donors are given priority for organs, should they ever need one. Disincentives for living donation are removed by providing insurance reimbursement and social supportive services^[81].

First priority is granted to candidates whose first-degree relatives donated organs after death. It is also granted to candidates who have been themselves have registered as kidney or liver-lobe donors. Second priority is granted to candidates who have registered as organ donors at least 3 years prior of being listed. Third priority to candidates whose first-degree relatives have registered as organ donors at least 3 years prior to their listing^[82]. A Parliamentary amendment was recently made to this clause that has broadened the prioritization to any living donor. Prior kidney, liver lobe or lung lobe donors, who now need an organ, are granted first priority in the allocation of these organs^[83].

This law is based on the ethical principle of reciprocal altruism^[84] where by those in the society who are willing to help others will in turn be helped. This effectively works as an incentive for many to become registered donors^[85]. It also derives some features from UNOS policy, which allows living donors of organs priority to receive a transplant from a deceased donor should they ever need one^[85]. The Singapore's Human Organ Transplant Act grants priority to a person who did not register any objection in respect of organ donation vs organ allocation over a person who has opted out from organ donation^[86].

This law has been criticized on ethical grounds, as one's chances of obtaining priority points may potentially increase with greater number of first-degree relatives and may be disadvantageous to those with fewer siblings. Additionally, it introduces the potential for individuals to register solely to assure priority points in the future, while advising their families to decline donation in the event of their death^[87].

When this law was implemented, an organ donation public awareness campaign was also launched. Television, radio, billboard and newspaper advertisements were introduced promoting the new priority system. The perception that Jewish law forbids donation was countered. Shopping centers and coffee houses were overwhelmed with information regarding organ donation. This resulted in an overwhelming response from the Israeli population. Seventy thousand Israelis registered for organ donation cards within the first 10 wk of the campaign^[80]. In 2011, the Israeli organ donation rate increased from 7.8 to 11.4 donors per million populations^[81]. Israeli transplant tourism to China to receive organs has now ceased^[88].

CONCLUSION

The gap between organ demand and supply is forever

widening. It is essential to review ethical facets of every new law, strategy or policy initiated to increase the organ donation. Ethical reflections of organ donation quandaries promote and advance this field in a bioethical manner that ultimately benefits humanity and the well-being of the society.

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