Introduction

Every person who is suffering from end stage organ failure is provided with a gift of a new horizon of quality and good life through a life saving organ. Organ transplant defined as the transfer of a living tissue or organ to an injured or ill person to restore health or reduced disability, first started in the 1930 [1]. This concept gave new hope and new life to ailing patients when several kidney transplants were successfully performed in the 1950 [1]. Public relation in-charge plays vital role in organ donation and transplant programme. The public relation in-charge counsels the donor and recipient concerning with psychology, religious perspective, legal issues, medical expenses; socio-ethical issues with moral support and bridge the patients with urologist and nephrologists. The patients are more open for discussion with the public relation in-charge than the doctors. However, government has made it mandatory to have a transplant coordinator in every organ transplant hospitals in our country. There are more than 450 organ transplant hospitals throughout India. Today, most organ transplants are relatively safe procedures, no longer considered as experiments, but considered as treatment options for thousands of patients with medical indicators, such as those suffering from renal failure hence improving quality of life, and reducing morbidity and mortality [1].

There is good evidence that patients from indigenous and migrant ethnic minorities are more likely to develop end stage renal failure but less likely to receive a renal transplant [2]. Recent studies suggest that, apart from cultural, social, and educational issues and language barriers, religious concerns may play a role in a decision against donation [3]. However, care must be taken in to equate ethnicity with religion, and detailed analysis is required to dissect the various factors. There are also striking differences between countries as to the willingness to donate (Figures 1-3) Different infrastructure, law, or consent system may explain some of these differences, but religious factors may play a role as well, particularly in countries with low deceased donation rates [4]. We recently encountered a case in our hospital that made us reconsider our approach to this issue, particularly in the large numbers of patients we see in our catchment. In this review article, we first explore the role of public relation in-charge in counseling the donor and recipient based on various scientific, social, and religious opinions on organ donation. It is hoped that this knowledge and understanding may benefit both health-care and patients in a multicultural society like India.

Keywords: Transplant; Ethics; Social; Religion; Cognition; Organ donation

End Stage Renal Failure

Kidney transplantation is the pioneer discipline in solid organ transplantation, and the relationship between transplant surgeon nephrologists and public relation in-charge has served as a model for multidisciplinary team care. The estimated number of patients starting renal replacement therapy each year for end-stage renal failure (ESRF) in the United States is about 360 per million populations (U.S. Renal Data System [USRDS], 2010) [3]. The median age of these new ESRF patients is 64 years. Both the prevalence and the incidence of ESRF are more common in elderly than in young patients, in men than in women, and in African-Americans, Hispanics, and Native Americans than in Asians and whites. Diabetes mellitus is the most frequent cause of ESRF, followed in order by hypertension, glomerulonephritis, and renal cystic disease. Diabetes is especially common in Native Americans, and hypertension is disproportionately high among African-Americans. The incidence of ESRF is greater than that for any urologic malignancy except prostate cancer, and more patients die annually from ESRF than from any urologic malignancy [3].
Figure 1: Countries where kidney transplantation is currently performed (black). Source: World Health Organization.

Figure 2: Crude number of living kidney donor transplants. Data do not include countries where fewer than 10 living kidney donations were reported.

Types of Organ Transplant

Organs can be transplanted from a living donor or deceased donor [3]. Examples of organs transplanted from living donors are livers and kidneys [2]. This is possible because liver is capable of regeneration, and human beings are born with two kidneys and have one extra kidney to donate [4]. There have also been reports of lung transplantation from a living donor but still it is very rare [5]. For these types of procedures, patients in need of transplantation would seek a willing relative or friend as a donor. If the donor were a match, the surgical procedure would proceed immediately. However, a small number of living transplants are from charitable people donating for a good cause [4]. On the other hand, patients who need a heart transplant, a double lung transplant, a pancreatic transplant, or a cornea transplant would need to get the organ from a deceased donor or from people who are brain dead but on mechanical/organ-perfusion life support [5-7]. Even though people who are brain dead are technically dead, their body and organs would still be functioning, hence suitable for organ donation [3]. However, some organs deteriorates quickly after the body expires, thus making them inappropriate for transplant.

Preliminary Screening- Donor Selection, Tissue Typing and Cross Matching

The purpose of the evaluation is generally considered to diagnose the primary renal disease and its risk of recurrence in the kidney graft and to rule out active invasive infection, a high probability of operative mortality, noncompliance, active malignancy, and unsuitable conditions for technical success. The basic criteria for a renal donor are an absence of renal disease, an absence of active infection, and an absence of transmissible malignancy. Whether the kidney is removed from a living donor or a deceased donor, the surgical goals are to minimize warm ischemia time, preserve renal vessels, and preserve ureteral blood supply. In the deceased donor, it is also necessary to obtain histo compatibility specimens and sometimes necessary to remove iliac vessels for vascular reconstruction of the donor kidney (Tables 1 and 2).
Organ transplant has been hailed as one of the greatest achievements of the modern surgery [1]. There are however, many ethical dilemmas and controversies associated with this procedure [8]. Among the questions raised were, who gets priority? Will priority be based on the severity of a person’s illness or his age or other factors? Will money, social status, religious principles, or political connections influence this decision [3,8-12]? Having a set of guidelines by the Indian government National transplant committee solved this problem [13]. The role of the committee was to ensure that all Transplant specialists adhere to this set of guidelines. Another factor that needs to be considered was the cost of organ transplant, as all organ transplants are very expensive, as it includes the surgical process and later on, the continuing rehabilitation process. Would this mean that a rich person would get a new organ and a poor person refused [8-10]? Setting up a National Transplant fund whose role was to help and fund organ transplant of those in need, reduced this problem. A third factor to be considered was the question of consent and incentive. Currently, someone had to agree directly for transplantation in order for organs to be removed. However, consent has to be given willingly, and not taken under duress or after harassment. There should not also be any questionable incentive, e.g. where someone sells his kidney [3,8-12].

The organ procurement process could also pose problems. This was mainly due to the different definitions of ‘death’. Should death be defined as when the heart and lungs stop, or when the entire brain ceased to have activity, or just when the higher functions stop? These are important issues, as no one would want to take organs from someone who is still alive. However, waiting for ‘whole brain death’ could leave many organs unusable. From the public relation in-charge’s point, among the ethical principles to be considered is respect for patient autonomy, where competent patients have the right to make informed choices regarding their bodies and their lives, that they have the right to refuse medical therapy under most circumstances and to offer their organs for transplantation, irrespective of the circumstances of their death [3, 8-11]. There is currently shortage of donor organs worldwide [14], the ageing population and increase in incidence of diabetes will worsen this shortage [14,15]. Of the world’s 6 billion population, four-fifth is from the developing countries. Unfortunately the transplant rates in the developing world is much to be desired, at less than 10 per million population (pmp). However, in Asia, there are marked variations in socio-economic status in member states and this is reflected in the transplant. For example, the renal transplant rates ranges from 0.16 pmp in Bangladesh to 21.4 pmp in Singapore [16,18,19]. Therefore, there is a demand for donor organs in the developed world. This problem is compounded by the general reluctance of Asians in cadaveric organ donation despite legal sanction for cadaveric donations and support from the major religious groups [17]. Therefore it is not surprising that living donor organs contributes 85-100% of transplantation in the developing countries as opposed to 1-25% in the developed countries [16]. These differences are mainly due to racial and cultural attitudes towards death and the sanctity of the human body, thereby affecting consent for cadaveric donation [17]. Therefore a large market for the purchase for living unrelated organs (particularly kidneys) flourished. This is compounded by a low suitable donor pool of 1.6 donors available per recipient in the developing countries [16]. The increasing ease of communication in the 21st century has made organ trafficking and transplant tourism/commercialism into global issues, accounting for about 10% of organ transplant performed yearly in the world [19].

Public relation in-charge and transplant specialist should also consider values such as patient-doctor trust, respect for human dignity and presence of conflict of interest. This means that the procedure should include a fully informed process where the interest of procuring organs should not interfere with optimal patient management during the dying process. Ethically and legally, a person should not be killed to provide organ for another, and that organ retrieval can only begin until the donor had been declared dead. This determination of the correct interval between death and organ harvests is a continuous issue [3,8-12]. Lately, there have also been concerns raised regarding the role of genetic engineering, the role of embryonic stem cells, cloning, and transplant from animal’s sources, opening up a host of different ethical debates [20]. Further discussion and research is needed to address these issues. Evidence-based results from these scientific researchers have important implications for healthcare practices [21].

### Social and Religious Consideration Regarding Organ Transplantation

The shortage of organs for transplantation makes it important to understand why some oppose organ donation [21]. There are many reasons why certain populations are less likely to consent to organ donations. Among these reasons, both social and religious issues play an important role, especially in a multietnic, multi-cultural, and multi-religious community like India. It has been reported that the formal position of a religion to organ donation and transplant play an important factor in persuading the community regarding organ transplant [22-25].

#### A. Social issues

Many social issues need to be considered when promoting organ transplant in the community. Some of these issues are misconceptions that need to be addressed individually [11,26-29].

The first misconception that needs to be corrected is the perception that the body of the donor would be mutilated and treated badly. This is
of Muslim scholars promote the importance of saving human life, based on the teachings of Prophet Muhammad who encouraged his followers to seek medical attention when ill, and hence allow organ transplantation. However, there is no unanimous support for this view. This variability in attitude towards organ donation is thought to be due to the variable opinions of individual religious leaders and Muslim scholars, who had variable knowledge regarding organ transplant [22].

It is reported that Muslims who argue against organ donation believed that Islam forbids organ donation as it was not mentioned in the Quran and traditional Islamic literature, believed that the body is owned by God and that only God could make decisions about its fate and had cited sacredness of the body, believed that the deceased’s body must be buried as soon as possible after death, expressed the view that the body is resurrected after death and that it was more desirable for a body to remain whole after death, believed that disease would only be cured by god’s will and that they would prefer to wait for a divine cure rather than accept organ transplantation, and a belief that organs took an independent role as ‘witness’ to an individual’s life on ‘Judgment Day’, and an anxiety that the donor would have no control of who receives his organ [26,32,33]. There were also those who believed that organ transplantation extended a patient’s life and his suffering. In order to respond to this misperception, it would be important to recognize the important of authoritative religious figures and involve them in the decision process for organ transplant [26,32,33].

Christianity perspective: As for Christianity, the main branches of Christianity, i.e. Catholics and Protestants support and encourage organ transplant. Christians look at Jesus Christ, whose life was one of self-giving as guidance. Pope John Paul II, the recently deceased Pope had repeatedly advocated organ donation and organ transplant as a service of life. However, in order to prevent conflict, it was suggested that the freedom of the prospective donor should be respected, and that the physician who determines death should not be a member of the transplant team [30].

Jainism perspective: In Jainism, compassion and charity are considered to major virtues. Organ donation has been widely supported by the Jain community leaders and monks. It has been reported that in Mumbai, 85-90% of all organ donations including eye donations, are by Jains and Gujaratis (a significant fraction of them are Jain in Mumbai). Gujarat has had considerable success with the eye donation program due to a significant population of the Jain community, which considers eye donation as a sublime form of charity [42,43].

Buddhism perspective: According to Buddhism, it is a great Merit to donate one’s own flesh for the sake of another. The lord Buddha is also believed to be sacrificed himself by jumping into a fire in order to nourish a lost and starved villager in woods, in a previous life as a rabbit. The choice of making the donation has to be made by the donor himself according to Buddhism. It’s not clear brain death is a form of death according to the Buddhist perspective. However, if it considered as death, in which case one cannot make decision of one’s self, it is a good deed for one who died and for the ones involved in decision-making and contributing [44-46].

Confucianism, and Taoist perspective: It has been reported that persons of Chinese ethnic origin, due to the influence of Confucianism values, Taoist and other spiritual beliefs do not support the thought or organ donation as they associated an intact dead body with respect for ancestors or nature [29,35]. In particular, in Confucianism, the concept of ‘filial piety’ dictated that individuals should return their bodies in the same condition that they received from their parents, out of respect for their ancestors [24,36]. It is therefore wrong to return a person’s body not intact by removing organs from it [37]. However, if they do decide to donate their organs after their death, the priority is to close relatives, and then in descending order, distant relatives, people from their home country (other


5
Chinese ethnic group) and then only to strangers [38]. This ‘negotiable’ willingness to donate has enormous implications, where transplant specialist can use it as a strategy to increase organ donation rates among Chinese community.

Implications of Ethical, Social, and Religious Aspect of Organ Transplants

Understanding the ethical social cultural and religious beliefs of multiethnic population is important, as this could be used to explore negotiable limits of those belief and values 40. Firstly, a public relation in-charge and physician involved in the procurement process should explore issues based on the effect of procurement process seemed to violate their religious and spiritual belief, a public relation in-charge and physician who understands this belief, may change the procurement protocol to allow a patient to donate their organs without violating their values, for example Taoist who believed that his major organs have a one-to-one relationship with nature may not allow those particular organs to be removed for donation, but may allow other organs or tissues to be procured. A Chinese patient, who declined to donate his organ to an open system, may be willing to donate if he were allowed to specify the recipient. This is because Confucianism beliefs emphasized the family as the moral basis of society. Thus, addressing this religious perspective is important, as people would be more willing to donate organs to people similar to themselves before they will donate to strangers at large. As for Hindus No religious law prohibits Hindus from donating their organs and tissues. Life after death is a strong belief of Hindus and is an ongoing process of rebirth. This could be seen as reflecting positively on the concept of organ donation and transplantation. As for the Muslim community, the same ‘negotiation’, can be used as that of the Taoist where, the recipient of the organ from a Muslim should also be a Muslim, as this would be an act of charity in the name of ‘Islamic brotherhood’.

Even though this article aim to address the social and religious issue of organ transplant, the author would also like to mention the importance of addressing the emotional issues faced by the family (the loss, the grief and the anger), as the question of organ donation at the time of death would seem inappropriate. At this time, the family would be in a state of crisis, overwhelmed with grief, and hence not at their functioning level. The thought or idea of giving a vital organ of a loved one to another would seem inappropriate. At this time, the family would be in a state of crisis, overwhelmed with grief, and hence not at their functioning level. The thought or idea of giving a vital organ of a loved one to another would not be welcomed. This aspect needs to be addressed by public relation in-charge and the transplant team.

Therefore to overcome the aforementioned difficulties, the following are suggested steps to be taken to attain societal acceptance of organ transplantation [16].

1. Minimizing difficulties of the organ donation process including avoiding delays in funerals.
2. Public Awareness of benefit of transplant to society, legal definition of brain death and stress absent of religious objections to transplantation.

Conclusion

Organ transplant is a safe procedure that gives new hope and new life to thousands of people. When dealing with this issue, it should not be forgotten that this is a discussion of life and death, where a decision is made on who lives, who dies and why. This issue is also regarding real people who are suffering, and decisions made based on good ethics and proper understanding of social and religious aspects will facilitate and make the process less painful. The community, public relation in-charge, and physicians should therefore approach organ transplant positively and objectively and treat ethical, social and religious issues as negotiable perspective and not barriers to organ transplant.

Reference


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