

## Linkages of Organ/Tissue Donation and Transplantation with

### “Maslow’s Hierarchy of Needs”- Indian Stories

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#### ABSTRACT

This paper draws a parallel of Maslow hierarchy of needs with organ donation and transplantation and illustrates how these needs i.e., physiological, security, love and belongingness, self-esteem and self-actualization are inter-dependent, interlinked and entrenched in both living as well as deceased organ donation and transplantation. The paper illustrates the nuances of inter-linkages of need satisfaction of people and professionals in organ donation and transplantation. With some case studies, it draws attention to the plight of impoverished people and insecure women who are exploited or intimidated into donating organs for meeting their physiological and security needs in class stratified and gender insensitive social milieu respectively. It however, reverses the acts of donation of organs by relatives of deceased donors who allow donation of organs from Brain Stem Dead donors in India and illustrates how security needs of these families are met through the most powerful and altruistic act of organ donation that gives life to a number of people fighting end stage organ failures. The paper traces new expectations of love and belongingness in the form of organ donation and discusses role reversal of females even on Rakshabandan, a Hindu festival that celebrates love and affection between a sister and a brother. The sisters risk their lives and gift their organs to give a fresh lease of life to their brothers. Drawing attention to the fourth level of needs, the paper discusses the plight of some vulnerable people who end up donating organs for gratification of their self-esteem needs in contrast to transplantation community who seek gratification of the same need through transplantation and influencing law making process in context of both living and deceased donation. It admires the gratification of self-actualization needs of a number of people who pledge to donate tissues, organs as well as the bodies after death/Brain Stem Death. India being a progressive country in organ donation and transplantation, this paper reveals how some professionals having satisfied all other basic needs, spend their own money and work tirelessly for pushing ahead the National Organ and Tissue Transplant Organization (NOTTO) under the aegis of National Organ Transplant Programme (NOTP) in the country.

**Keywords:** *Maslow’s Hierarchy of Needs, Physiological Needs, Security Needs, Love and Belongingness Needs, Self-Esteem Needs, Self-Actualization Needs, Organ Donation and Transplantation, National Organ and Tissue Transplant Organization (NOTTO) and National Organ Transplant Programme (NOTP).*

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Organ/Tissue donation is not new to India. The Hindu mythology has a famous story to illustrate how donation of body parts was not unheard of in the pre-historic times. As per the story, an omnipotent sage called Dadhichi had donated his bones for making a powerful weapon to destroy demons. The story is in Rigveda, the world’s oldest scripture. It seems that Dadhichi had offered his bones for making weapons to kill an obnoxious yet powerful demon called Vrutasur in a war against Devas, the residents of the God’s Kingdom – the devalok. Since Dadichi was omnipotent, his bones were supposed to be extra strong. The arsenal of Devas was failing in front of the mighty Vrutasura; they might have ended up losing the war and thereby allowing demons to rule the world. Dadhichi’s bones came handy to make a weapon, which was called Vajra (1). It gave the Devas an edge over their rivals and they defeated the demon. Interestingly Vajra is still an important part of Indian military’s imagery and lexicon. To commemorate Dadichi’s supreme sacrifice for a cause, India’s highest award for gallantry in war called Param Vir Chakra (PVC) contains the motif of Vajra(2). Dadichi’s story is seen as his supreme act of giving away his bones for a good cause instead of getting these perish in soil.

In modern times, however, India was hit by kidney trade rackets during 1980’s. These made the government sit up and work on a law on organ donation (3). The legislation known as Transplantation of Human Organs Act (THOA) was passed in the parliament in 1994. The Act authorized transplantation of human organs from living as well as Brain Stem Dead donors and put a ban on all commercial activities in organ donation and transplant in 1994 (4). The law allows living organ donation from known people (strictly after verification and scrutiny) to eliminate possibility of commercial dealings (5). Later the act was amended and is now called THO amendment Act 2011. This has legalized donations of tissues as well (6). National Organ Transplant Programme (NOTP) under Directorate General of Health Services (DGHS), Ministry of Health and Family Welfare (MoHFW) was started in 2009. This, in turn, established National Organ and Tissue Transplant Organization (NOTTO), an apex level organization. But as there is a huge demand for organs in the country, the law is not able to put an end to organ trade rackets. The organ donation in India is gaining momentum due to the growing political will as could be visualized when Prime Minister Mr. Narendra Modi twice talked of the importance of organ donation in his radio address to the nation in his “*Mann Ki Baat*” program in October and November, 2015. At present both living (5) as well as Brain Stem Dead donation (7) are facing huge challenges in India.

### **INTRODUCTION TO MASLOW’S HIERARCHY OF NEEDS**

According to Abraham Maslow, an individual has a number of needs which are usually met in accordance with his priority and importance. However, of all the needs it is the basic physiological needs which are important for an individual and are satisfied first. Maslow depicted needs in the form of a pyramid with basic and most important need for the normal physiological processes at the bottom and the need for self-actualization - at the top of the pyramid as shown (Figure 1). According to Maslow, the basic four needs i.e., physiological

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needs, security needs, love and belongingness needs and self-esteem needs are also called deficiency needs and if not satisfied the person will feel tense and anxious. These needs dominate human behavior. According to him, it is not that a man focuses on a particular need at a time but a certain need among below mentioned needs dominates his behavior (8).

- Physiological Needs
- Security Needs
- Love & Belongingness Needs
- Self-Esteem Needs
- Self- Actualization Needs

### LINKAGES AND DEPENDENCE OF “MASLOW’S HIERARCHY OF NEEDS” WITH ORGAN AND TISSUE DONATION

Organ/tissue donation and transplantation can be seen engrained in Maslow’s hierarchy of needs. These needs (Figure 1.) are inter-dependent, interlinked and entrenched in both living as well as deceased organ/tissue donation and transplantation. The dependence of organ/tissue transplantation on donations from people and inter linkages of need satisfaction among people and professionals can be portrayed in what follows in the paper.

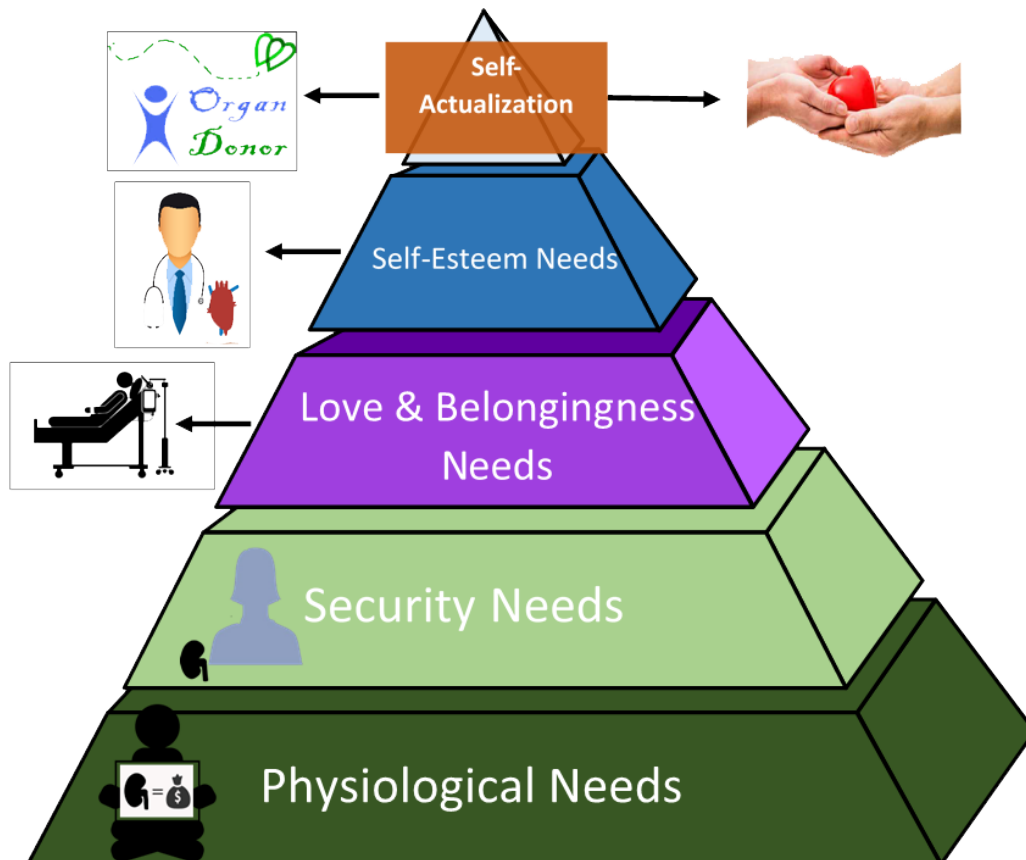


Figure 1-Showing Linkages and Dependence of “Maslow’s Hierarchy of Needs” with Organ and Tissue Donation

### *1. Physiological Needs in Context of Organ Donation and Transplantation*

As per “Maslow’s Hierarchy of Needs” the Physiological Needs, the fundamental needs for human survival, are entrenched in the physiological state of the body. Every one of us needs basic things like air, water, food and sleep etc. for meeting the physiological needs for survival. If these requirements are not met, the human body cannot function properly and will ultimately die. Physiological or biological needs are thought to be the most important of all needs and override all other needs of humans. These needs are always a priority and are met first. While it is easier for rich people to meet these needs the poor are often seen struggling to meet physiological needs like food and water (9).

In India some 270 million people live below the poverty line (10) and are striving hard to make both ends meet. At times they do not have socially acceptable means to earn to meet their basic needs and therefore tend to defy laws. People sell assets and valuables to meet their biological needs. A human body for some people is also like a house that is full of assets which can be sold to tide over the crisis. Some of these assets like blood can regenerate within the body while others –an organ like kidney cannot. In an insensitive social milieu, the poor human beings do not mind to give a part of their bodily assets for survival of the remaining parts. Also the rich human beings do not mind purchasing such assets, even though this is illegal in most of the countries. Modern technology has commoditized parts, fluids and cells of a human body. Legally some of these parts fetch money and some are saleable; the system varies from country to country. For example kidney can be sold in Iran and not in any other country. It is usually the poor people who end up selling blood, tissues and organs. The poor females do not mind renting out wombs for meeting the physiological needs of their families. Organ donation in a poverty ridden situation help poor people meet their physiological needs through the money it can get them in one go. However, in many cases, brokers make hefty commissions leaving the poor donor with little.

Sometimes during natural disasters the poor and marginalized people get further pushed to the wall. In such situations, keeping their body and soul together becomes tough. Such people are vulnerable to unscrupulous elements, who often exploit their situation by encroaching upon their bodies. These middle men lure them to flesh trade, donation of organs, sale of children etc. The tsunami of 2004, which was a major disaster in India, had left communities impoverished and displaced in Chennai. Relief materials from the government reached people late, thanks to the infamous bureaucratic delays. The desperate victims of Tsunami had by then got trapped into organ trade; many sold kidneys to meet the basic physiological needs of their own self and their families (11). It is like selling a part of body to keep the rest of it alive. The media highlighted the tsunami-linked organ trade though it is usual for the poverty-stricken people to sell kidneys to the elite through brokers.

Though the law bans sale of organs, yet the clandestine organ trade continues due to the anomalies in the organ transplant law and rampant poverty. Indian law allows organ donation from living donors, who can either be “near relatives” or “other than near relative.” However,

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such donations are always evaluated by either “competent authority” or “authorization committee “as per laws and rules followed in different states (5).

However, the misuse of law is common. At times rich people coax poor servants to donate organs, and they are shown as “other than near relatives” to satisfy the legal norms. Indian laws also permit donation of organs from spouse who is included in the category of “near relatives”. People produce fake marriage certificates and get away by buying an organ from a poor person (5). Many a time, doctors are also a party to such exploitation.

With so many people living below poverty line in India it is not difficult to exploit and lure a few to sell organs for giving a second life to a few rich persons. A few case studies are listed below:

- **Case study-(Narratives of an Indian transplant surgeon (trainer) at NOTTO in 2015:-**

I have an advice for all the trainees that never tell the patient in need of an organ transplant that donation from friends are also allowed in India. I have experienced that servants are usually passed off as friends for the purpose of getting him/her donate organs. It is only after financial evaluation of such donors and recipients by the “authorization committees” through income tax return files etc. that such frauds have been checked in a few cases.

- **Case study-(Narratives of a senior officer at DGHS):-** I came across two cases from a poor country. They had come for organ transplantation in India with live donors. Both these cases had been rejected for donation by “authorization committees,” It was surprising to see these two cases had almost identical story pointing to a single broker. The donors were shown as “other than near relatives” who appeared to be poor and malnourished. The two donors were said to be the brothers-in-law of the recipients; their marriage photographs were identically photo shopped and pinned with the documents. The two had similar stories too. The wives of the two donors were told to be sisters of the recipients. When asked why sister was not donating, the answer (in both cases) was that the sister was pregnant.

## ***2. Safety Needs in Context of Organ Donation and Transplantation***

According to Maslow, it is only after satisfaction of basic physiological needs that the human being strives for security needs (9). A human being strives for personal security, social security, financial security and safety against accidents and illness. With his physiological needs reasonably satisfied, an individual's safety needs take precedence and dominate behavior. Kidney donation serves as a social safety net for a number of poor people. Tamil Nadu is one such state where media has highlighted legal as well as illegal organ donation and transplantation. In a study conducted on 305 fishermen and fisherwomen in Chennai in 2001 who had sold their kidneys revealed that they did it to pay off debts to money lenders, for meeting their expenses on basics like food, paying rent, buying household items, marriage of children and medical

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expenses. However, sale of kidney did not bring a long term economic benefit to the sellers and it also led to decline in their health status (12).

As per Census 2011, the Female Labour Force Participation Rate (FLFPR) in India is 33% which means that only 125 million of the 380 million working age group females are seeking work or are employed (13). Majority of females are not working and are economically dependent. Consistent economic growth of the country has failed to provide job opportunities to women and is a great deterrent to their sustenance and independence (14). India is also a country with gross gender inequalities that has percolated in organ donation too.

A woman wants to feel secured in a family, more so as a consequence of patriarchal society. She usually is not a bread winner and is often exploited by family and society. Further her low economic status in the family makes her succumb to pressures, including for organ donation. The demand for organ donation from a female member comes usually for a male in need of an organ transplant. She is coerced in subtle ways into giving her consent as she fears for her personal and social security in case she refuses to donate. She fears of not only losing a family member but also a relationship, home and shelter for self and children. An Indian woman is conditioned to keep her image as a self-effacing person and a loving and caring mother who never cares for her personal wishes and needs. She could also stand to gain a secure position in family by donating an organ. In a way, an organ donation for a woman may also enable her to personal and financial security. There are instances of women being coerced by their husbands to donate kidneys (11).

It is logical to say that gender issues are ingrained in living organ donation. A few case studies are listed below:

- **Case study- (Narratives of a government official):-** I came across a woman who came to us as a potential donor. She was feeling nervous. When confronted with normal questions, her fears and reservations came to the fore. She revealed that she was a widow, stayed in her in-laws' house. In case she does not donate kidney to her brother-in-law, she would face the repercussions. The authority decided to refuse her donation on medical grounds.

- **Case study - (Reaction of one of my male colleagues whom I gave this paper for comments before getting it published ):-**

He was furious after reading it. He asked me, “Madam, why are you opposed to donation from females? If I fall sick tomorrow and I need an organ why shouldn't my wife donate for me? After all, she will feel secure only if I am alive; she is a home maker and I have given her security. Aren't people giving blood to strangers and what is the harm if the spouse who usually is not a bread winner donates an organ for her partner?” He said a woman giving an organ was not a big deal in society.

- **Case study- (Narratives of a person who lost his brother to kidney failure):-**

A person came to me for verifying death certificate of his brother who had died of kidney failure. Asked as to why they didn't try kidney transplant on him, he said, “She did not give.” He was

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referring to his dead brother's wife. When I told him that it is usually the sibling with whom the chances of matched kidney are more, he said he did not do it because his wife didn't allow him.

These instances point to a high level of expectation by males of the females when it comes to organ donation. The patriarchal society not only expects females to donate organs but uses them as shield in case they are unwilling to do it themselves. The men know that the women will always protect them either by offering to donate her organs to save a man's life or restricting those close to them from becoming donors.

Organ donation from Brain Stem Dead donors has not picked up in India in two decades. This is due to the continuing dilemmas being faced by professionals (15) and people (16). Professionals are not comfortable counseling relatives of a Brain Stem Dead donor whose heart is still beating. Hence it has been made mandatory for organ retrieval hospitals to have Organ Transplant Coordinators for counseling such families. The transplant coordinators are trained to motivate people to donate organs of Brain Stem Dead relatives and facilitate transplantation of organs (17). If they are not able to motivate people they feel insecure of losing jobs. Most of the transplant surgeries take place in private health sector that are largely unregulated and unaccountable (18). The insecurity of losing job sometimes can get one to indulge in unethical practices. At times, the authorities may pressurize them into resorting to such practices. A senior Indian transplant surgeon had once reported that a number of organ transplant coordinators' had approached him to guide them through a situation where they were faced with an ethical dilemma in dealing with hospital authorities.

However, organ donation from a Brain Stem Dead donor meets the security needs to the innate satisfaction of a family that sets standards for the society as well. It is not easy for relatives to give consent to organ donation from their Brain Stem Dead relative. They simultaneously fear losing him forever. Sometimes they opt for donation believing that at least he would continue to live in others. The relatives of Brain Stem Dead donors say that their decision to donate organs was motivated by the thought that the person will continue to live even after leaving this world as was reported by almost all the relatives of Brain Stem Dead donors during felicitation event on 6<sup>th</sup> Indian Organ Donation Day at Vigyan Bhavan, New Delhi in 2015 .The following are the case studies to support such statement:-

- **Case study:-**In March 2010, the family of a Lieutenant Colonel of the Indian army, donated his organs for soldiers and their families after he was declared Brain Stem Dead in Army Hospital. His two kidneys, liver and heart thereby gave life to four people (19).His family believes that he is living through his organs in four bodies.
- **Case study:-**Having conducted nearly 400 successful surgeries; the 40-year-old transplant surgeon's heart was transplanted onto a critical person, his kidneys were given to two others, after he was declared Brain Stem Dead in 2010. His wife overcame her grief and decided to keep him alive through organ donation. His peers kept his precious heart alive through

transplantation. The insecurity of losing him had vanished through the most altruistic act of organ donation (20).

### ***3. Love and Belongingness Needs in Context of Organ Donation and Transplantation***

According to Maslow, if the above needs are met the human beings strive for love and belongingness needs. Every one of us needs love and affection especially when other basic needs are satisfied. Love and belongingness needs are mostly satisfied by family members whether healthy or unhealthy (8). The need for love and affection is even more when a person is in a morbid state of health. Organ donation and transplantation has thrown new expectations from people when it comes to love and belongingness. If you love a person you are expected to donate organs.

Women strive to get love and affection of a family through organ donation for members of their family. A woman is a vulnerable person and is usually exploited. Sometimes words of sympathy from a member of family mean a world to her. That is why mostly women end up giving organs all around the world and do not get when they need. From 1995-2014, out of total 14038 organ transplant surgeries there were only 2006 transplant surgeries done on females in India(21). I have personally met women who felt they are not being loved as none in their family was ready to give them an organ which they needed for survival.

- **Case study :- ( Narratives of a female working woman who required kidney transplant):-**I loved my family wholeheartedly throughout my life .I earned for them, cared for them, gave away everything throughout my life. At this moment when I need a kidney, not even a single person in my family is willing to give me one. See, if they would have required it I would have been the first to offer my kidney. See, no one loves me.

Rakshabandan is a Hindu festival where sisters tie a wrist band called Rakhee on their brothers; wishing them long life and seeking security from them. The brothers, in return, give them a suitable gift and assurance to protect them. I never came across any media report of a brother giving a “gift of life” through organ donation to his sister on this festival. However, the stories of sisters donating organs for their brothers even on this day surface very often in the media (22, 23 and 24).

People generally want to be applauded by the society for their good deeds after death - pledging to donate organs, tissues and even bodies is one such act. Need for love and belongingness does not stay only during life but is perceived even after death. National Organ and Tissue Transplant Organization (NOTTO) gets a number of calls from people who feel they belong to the nation and pledge to donate organs and tissues after they are gone.

Many people donate the organs of their Brain Stem Dead relatives not knowing who the recipients are. Their love and belongingness needs can be seen even after death when the recipient family in certain cases succeeds in locating the donor family or vice versa. The love



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and belongingness needs are extended to recipient families in the process. There are instance of joint celebrations of death anniversary of the donor and the ‘birth’ anniversary of the recipients – which should fall on the same day – abroad. The love and belongingness needs could be seen in an event on organ donation conducted at Houston in America (25) when donor families could succeed in locating the recipients. They were seen hugging and crying along with the recipients of their dead relatives organs. It was a poignant scene. The relative who had passed away leaving the “gift of life” for the wellbeing of the recipients needing transplants was revered both by the donor and the recipient families.

Universally, the identity of donors is not revealed to the recipients. Recently the two hands of a male Brain Stem Dead donor were transplanted into a foreigner. The media showed the woman holding her husband’s hands in another person’s body. Touching her husband’s hand gave her a sense of belongingness to those hands (26) which is usually not encouraged.

### ***4. Self -Esteem Needs in Context of Organ /Tissue Donation and Transplantation***

According to Maslow, human beings have a need for self-esteem (8) and people engaged in transplant profession are no exception to it. They strive to gain recognition, fame and glory. Their basic physiological, security and love and affection needs are usually satisfied and their self-esteem needs are dependent on donation of organs. There are a number of innovations in transplant surgery field like face and hands transplantation etc. These innovations enable them to get a higher status in their community and the society. Since organs all over the globe are not easily available, the heavy dependence of organ transplant surgeons on organ donation makes them restless and agitated.

Having earned a status in society, they are in a position to persuade governments to push laws that enable them to get organs for transplantation easily. More the transplants they do more their self-esteem needs are satisfied. They also want rules for living as well as deceased donations relaxed. The government officials who are instrumental in getting the laws passed are invited to attend events, conferences, workshops pertaining to organ donation and transplant and are felicitated too. The ulterior motive of organizers of such interactions is to satisfy their own self esteem needs. This satisfies the self-esteem needs of the parties, the government officials and the private organ transplant operators, the former by being a part of the mega events at lavish venues, the later by being able to influence officials into tweaking the proposed laws to make organ availability easy.

On the other side, people with low self-esteem needs often strive to get respect especially from those people who look down upon them. The vulnerable people and dependent women in our society often suffer from low self-esteem. In certain instances donating an organ comes to the rescue of their low self-esteem. Some prefer to donate organs altruistically, some to save lives of their family members and some to support families in overcoming financial crisis. In other words vulnerable people achieve self-esteem needs by donating organ (27), while transplant

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community achieves self-esteem needs by transplantation and being instrumental in making laws easier for transplantation.

### ***5. Self- Actualization Needs in Context of Organ/Tissue and Body Donation***

As per Maslow, the self-actualization need is the need to achieve full potential through creativity, independence and a grasp of real world. Having met all the above needs a person strives for self-actualization needs, a craving to give back to the society (9). This need makes a person unbiased and truthful; he tries to give meaning to life by giving back to the world.

A few transplant surgeons have been seen going that extra mile to help the NOTTO in getting established. One of them, in advisory capacity to Govt. of India has done more than 4500 transplant surgeries, is well established financially and professionally, works tirelessly for NOTTO without being paid, does not mind visiting NOTTO after doing two transplant surgeries a day at times and guiding authorities to carry ahead the programme. Also it was because of the voluntary handiwork of one of the busiest and very reputed medical professional who heads nephrology department of a very reputed hospital that National Organ and Tissue Transplant Registry (NOTTR) was inaugurated by Union Minister for Health & Family Welfare, Sh. J.P. Nadda on 6<sup>th</sup> Indian Organ Donation Day observed on 27<sup>th</sup> November 2015.

A few case studies below describe the need for self-actualization.

- **Case study: - (Narratives of a person who wanted to pledge his organs at Health Pavilion in India International Trade Fair -2012):-**Madam, I want to donate my body parts for transplantation, research and educational purpose. I do not mind if my skeleton is standing in some medical college after I am dead. Let students learn from my skeleton. I have got everything in life, I want to be worthy of something after my death. Madam, please help me in helping society in some way after my death.

- **Case study - (Narratives of a medical student at Central Health Education Bureau):-**Madam, I feel very bad as I remember my grand mom who wanted to donate her body. I was a small child then and could not influence my family to respect her wish. My grandma had told me that she was indebted to people who had allowed her children, husband and other family members to learn from their bodies (cadavers) in medical colleges. She felt she was the happiest person in life having seen the successes of her family in medical profession. She wanted her body to be donated after death so that other medical professionals could learn from her body the way her family members in medical profession did.

After a few months, the same student called me. She said, “Madam, I am happy as I could fulfill the wish of my grandfather- in- law to donate his body to medical science. I feel happy that one of my family members has contributed to the welfare of society even after death.”

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- **Case study - (Narratives of a Govt. Medical College Principal):-**A Principal of a reputed Delhi medical college came to NOTTO to inquire about the pledge form. She wanted to pledge her body. “I have seen how students in medical colleges face problems as cadavers are not available. I want to donate my body after I am dead. Let students learn from my body,” she said.

### CONCLUSION

This paper concludes that organ /tissue and transplantation are meeting various needs of people and professionals in different ways. These needs are interdependent and interlinked and are gratified in different ways either by organ/tissue/body donation or by transplantation. Organ transplantation has thrown new challenges in terms of needs and their ways of gratification. While organ donation from live donors is not without risk and also coercive and exploitative at times, the best way to give back to the society is to refrain from coercive methods of organ donation and transplantation; donate organs of Brain Stem Dead Donor after satisfying yourself of the Brain Stem Death, pledge to donate organs and tissues after understanding nuances of organ and tissue donation ,inform family regarding your will to donate organs/tissues/body and respect the will of the dying person. The Government officials need to weigh the pros and cons of every amendment related to organ donation and refrain themselves from pushing ahead the laws and rules that could be coercive for people in our heavily stratified society.

### REFERENCES

1. Dadheech Ram Kumar (2015). All India Dahima (Dadheech) Brahmin Mahasabha. [Online] Retrieved on November 21, 2015 from <http://dahimadadheech-mahasabha.org/?str=Site/maharshidadhichi>
2. Gallantry awards: Paramvir chakra. [Online] Retrieved on November 21, 2015 from <http://indianarmy.nic.in/Site/FormTemplate/frmTempSimple.aspx?MnId=wLnKa0k2uO18wWl8u1j0kQ==&ParentID=C0RhAZwF0Ge138GUxTRzzQ==&fl>
3. Jha Vivekanand (2004). Paid transplants in India: the grim reality. *The Nephrology Dialysis Transplantation* ,19(3),pp541-43
4. THOA (1994). Transplantation of Human Organs Act 1994. Central Act 42 of1994. The Gazette of India, part II; section 3; sub section (I); Feb 4, 1995
5. Dar Reeta (Khashu) and Sunil Kumar Dar (2015). Legal framework, issues and challenges of living organ donation in India. *IOSR-JDMS*, 14(8), pp.59-66. [Online] Retrieved on August 14, 2015 from <http://iosrjournals.org/iosr-jdms/papers/Vol14-issue8/Version-8/N014885966.pdf>
6. THO amendment Act (2011).Transplantation of Human Organs (Amendment) Act 2011. The Gazette of India; part II; section 1. 2011 Sept 27.
7. Dar Reeta (2014). Challenges to organ donation from Brain Stem Dead persons in India. *The Nursing Journal of India* ,Vol. CV(3).pp.105-108

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8. Kremer William and Claudia Hammond (2013, August 31). "Abraham Maslow and the pyramid that beguiled business." BBC news magazine. [Online] Retrieved on November 22, 2015 from <http://www.bbc.com/news/magazine-23902918>
9. Cherry Kendra (2015). Hierarchy of Needs: The Five Levels of Maslow's Hierarchy of Needs. [Online] Retrieved on November 21, 2015 from <http://psychology.about.com/od/theoriesofpersonality/a/hierarchyneeds.htm>
10. Mehra Puja (2015, Feb 6). 8% GDP Growth Helped Reduce Poverty: UN Report. [Online] Retrieved on November 21, 2015 from <http://m.thehindu.com/news/national/8-gdp-growth-helped-reduce-poverty-un-report/article6862101.ece/>
11. Carney Scott (2011). The Red Markets: on the trail of the world's organ brokers, bone thieves, blood farmers, and child trafficking. Gurgaon, India: Hachette Book Publishing India Pvt. Ltd.
12. Goyal Madhav et al (2002). Economic and health consequences of selling a kidney in India. *JAMA*. 288(13): pp.1589-1593. doi:10.1001/jama.288.13.1589doi: 10.1001/jama.288.13.1589.[Online] Retrieved on September 5, 2015 from <http://jama.jamanetwork.com/article.aspx?articleid=195344>
13. Das Sonali et al (2015). Women Workers in India: Why So Few Among So Many? Indian Monetary Fund Working Paper.[Online] Retrieved on August 28, 2015 from <https://www.imf.org/external/pubs/ft/wp/2015/wp1555.pdf>
14. Nagarajan Rema (2013, November 29). Women account for just 22% of workforce in India. Times of India. [Online] Retrieved on November 24, 2015 from <http://timesofindia.indiatimes.com/india/Women-account-for-just-22-of-workforce-in-India/articleshow/26548372.cms>
15. Dar Reeta and Vivek Adhish (2014). Debates and dilemmas of organ donation from Brain Stem Dead Bodies from the perspective of professionals. *EIJMR*, 1(4). [Online] Retrieved on January 10, 2015 from [www.express-journal.com](http://www.express-journal.com)
16. Dar Reeta Khashu and Sunil Kumar Dar (2014). Peoples Perspectives: Insights into Organ Donation from Brain Stem Dead Donors. *IOSR-JHSS*, 19(12) pp. 70-76. [Online] Retrieved on January 15, 2015 from <http://www.iosrjournals.org/iosr-jhss/papers/Vol19-issue12/Version-2/M0191227076.pdf>
17. THOT Rules (2014). Transplantation of Human Organs and Tissue Rules. The Gazette of India: Extraordinary [PART II—SEC. 3 (i)]; March 27, 2014.
18. Nandraj Sunil (2012, January 28). Unregulated and Unaccountable: Private Health Providers. *Economic & Political Weekly*, xLvii (4). [Online] Retrieved on September 15, 2015 from [https://www.researchgate.net/publication/270887691\\_Unregulated\\_and\\_Unaccountable\\_Private\\_Health\\_Providers](https://www.researchgate.net/publication/270887691_Unregulated_and_Unaccountable_Private_Health_Providers)
19. ----- (2010, March 30) R&R hospital sees two multiple organ donations. Times of India.[Online] Retrieved on September 15, 2015 from <http://timesofindia.indiatimes.com/india/RR-hospital-sees-two-multiple-organ-donations/articleshow/5739939.cms>

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20. Pushpa Narayan (2010, Jan 1). Wife helps in transplant of doc-husband's organs The Times of India.[Online] Retrieved on November 29, 2015 from <http://timesofindia.indiatimes.com/city/chennai/Wife-helps-in-transplant-of-doc-husbands-organs/articleshow/5401251.cms>
21. National Organ and Tissue Transplant Organization (NOTTO: National Organ and Tissue Transplant Registry (NOTTR). [Online] Retrieved on November 29, 2015 from <http://www.notto.nic.in/organreport.htm>
22. ---- (2007, August 28). Sister gifts kidney to ailing brother for Raksha Bandhan.[Online] Retrieved on November 29, 2015 from <http://www.dnaindia.com/india/report-sister-gifts-kidney-to-ailing-brother-for-raksha-bandhan-1118311>
23. ---- (2012, August 3). Woman gifts her kidney to brother on Rakshabandhan. Times of India: Delhi. p3.
24. Trivedi Vivek (2015, August 29). Sister ‘gifts’ kidney to save her brother’s life ahead of Rakshabandhan.[Online] Retrieved on November 29, 2015 from <http://www.news18.com/news/madhya-pradesh/sister-gifts-kidney-to-save-her-brothers-life-ahead-of-rakshabandhan-797029.html>
25. ----- (2014, June 24). Local Pair Going to Houston for Transplant Games of America: A heart transplant recipient and donor's mother practice for the Transplant Games of America. [Online] Retrieved on November 29, 2015 from [http://www.dailymotion.com/video/x206c3f\\_local-pair-going-to-houston-for-transplant-games-of-america\\_news](http://www.dailymotion.com/video/x206c3f_local-pair-going-to-houston-for-transplant-games-of-america_news)
26. Shaju Philip (2015, May 18). In a rare surgery, Kochi hospital transplants both hands of former Afghan soldier. [Online] Retrieved on November 21, 2015 from <http://indianexpress.com/article/india/india-others/kerala-twin-hand-transplant-successfully-performed-on-ex-army-captain-from-afghanistan/>
27. Simmons Roberta G. and Susan Klein Marine (1987). Gift of Life: The Effect of Organ Transplantation on Individual, Family, and societal dynamics.[E-Reader Version] Retrieved on November 22, 2015 from <https://books.google.co.in/books?id=eWVC8QpZFpoC&pg=PA221&lpg=PA221&dq=self+esteem+needs+and++organ+donation&source=bl&ots=Z9lubQSEJ7&sig=jB-TwkiIP4fCrJ4adIrMV289-B4&hl=en&sa=X&ved=0ahUKEwjLt4n976DJAhUHpJQKHS8XBNYQ6AEIUTAJ#v=onepage&q=self%20esteem%20needs%20and%20%20organ%20donation&f=false>