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Chapter

Important Role of Health Workers in Organ Donation at Gross Route Level

Mangesh Jabade

Abstract

Life is an energizing experience. It starts with birth and ends with death. Human spend various stages of life with different illnesses and issues between the birth and death. Donation of an organ is not the same as donating an organ or a portion of an organ for transplantation into another individual improving the quality of life of end-stage organ failure patients. The only choice is organ transplantation way to save lives. As a result, there is a supply-and-demand imbalance for donated organs, resulting in patient death. The number of organ transplants has steadily risen over for the past two decades, and children and adolescents have had outstanding results for their regain of life. That is why importance of organ donation needs to focus on gross route level in the community through health workers.

Keywords: health workers, organ donation, gross route level

1. Introduction

Life is an energizing experience. Which begins with arrival in the world and finish with demise. We spend different periods of life with various illnesses as well as issues between two of us. Healthcare advancement and technologies have started in order to protect people from death, and organ transplantation is most unbelievable feat in futuristic treatment, with the ability to save the lives of patients. Organ & tissue donation is integral to transplant. For post transplantation miracles is fully depended on polite judgment of donor & donor family [1].

An organ donation is not the same as donating any part of organ or organ would be inserted by operating procedure into another person. With case of end stage organ failure Strengthening patients' health and wellbeing. A only way to save lives is through organ transplantation. As a consequence, there is a supply and demand shortage for donated organs, resulting in patient deaths. Over time, REP Tree is a rapid decision tree method that automatically builds and prunes a judgment tree based on information acquisition, children and adolescents have achieved outstanding results. The increasing cases of transplant in elderly with comorbidity. On the other hand, is posing a problem. As a result of technological advancements and inventions in preoperative management, organ transplantation has improved [2].

Legally capable Persons can choose organ donation & donate body or entire body. Anatomic gifting of body by a person is individual decision for donation of organ. At the time of donation Family permission must be obtained. To ensure availability of blood & O₂ in organs until recovery of donor organs. This necessitates that a person dies as a consequence of An aneurysm, stroke, or car accident can result in a permanent neurological injury, which is normally caused by a major shock to the brain. The patient's name is checked against the state donor list to see if he or she has given their consent to donation in general. If a potential donor's name does not appear on the registry, the donation should be accepted by his or her legally authorized representative. Medical and social histories are collected as a donation decision is made. Organ donation experts Identify which Organs that are candidates for transplantation should be on the National Transplant Waiting List [3].

When compared to other Asian subgroups, Obesity and diabetes are more common among Asian Indians, placing them at a higher risk of needing an organ transplant. Coronary artery disease and hypertension may result from these conditions, which may Chronic kidney disease and other illnesses may result as a result of this. Dialysis is needed on a regular basis Organ transplantation can help patients with chronic kidney disease improve their quality of life. Diabetes and obesity, for example, may have a detrimental impact on an individual's life but contribute chronic liver disease can be led by fatty liver and, if left untreated, death, all other medications fail, necessitate a liver transplant [4].

It can be stated as universal problem of There is an organ shortage in Asia, but it is lagging behind the rest of the world. Also in Asia, India lags far behind other nations. It's not as if there aren't enough organs available for transplantation. Almost anyone who dies in a natural or accidental death is a potential donor. Even then, a large number of patients are unable to find a match. In middle of 20th century the development of organ transplantation has been a remarkable achievement. Awareness, support & active participation of people are needed for its success. It Without these considerations, the organ transplantation will be detrimental [5].

With a growing the number of patients in need Owing to increased Transplants, Many transplant programmes are attempting for larger numbers of surgical procedure from no cadavers because there are so many people dying on the waiting list and so few organs available. There are so many options for transplantation as living person organ donation is not only the choice. Have been hesitant to encourage it because it involves risky surgery on an otherwise healthy individual with significant morbidity and mortality risks. Given that dialysis is a treatment, choosing surgery on a healthy donor for patients nearing the end of their lives kidney disease it could be tough to explain, especially given the reduced quality of life of dialysis patients [6].

Preventing psychological damage, ensuring Donors are well aware of and want to donate without being pressured and tracking donor psychosocial outcomes are both psychological problems related to factors that have traditionally influenced donor behavior. Slowed the use of living donor organs. Inspiring the public, raising awareness, and keeping people accountable are all ways to overcome obstacles in the transplantation process.

Every year on 13th August Organ Donation Day is celebrated. Myths & fears in peoples is due to lack of awareness in relation to organ donation This day's purpose is to inspire ordinary people to pledge to give organs after death and raise awareness about the need of organ donation. To transplant after donor dies- hearts, livers, kidneys, intestines, lungs, and pancreas are among the organs transplanted into recipients can be termed as organ transplantation.

2. History of organ donation

Modern technology has given us a plethora of resources to aid in the donation of organs, but have you ever wondered where it all began? The following are some notable achievements and historical landmarks relating to transplantation of tissue and organs

- While some of the first known transplantation of bones attempts originate in the middle Ages. This field of medicine was still in its infancy. Without a doubt, those first patients and doctors were the best courageous people.
- While Bone transplantation dates back to the middle Ages, with some of the earliest recorded attempts dating back to the Middle Ages this field of medicine was still in its infancy. Those first patients and doctors were unquestionably brave individuals.
- It wasn't until significant advances in the field of science strong transplantation of organs became popular in the mid-twentieth century.
- Dr. Joseph E. Murray in Boston, Massachusetts, achieved a significant landmark In 1954, he performed the First successful renal transplantation (a gift from one twin to the next). In 1990, The Nobel Prize in Medicine was awarded to Dr. Murray.
- The first successful kidney transplants took place in the year 2000 on identical twins in 1959 as well as in 1960, and they were quickly followed by others by non-twin siblings in 1961.
- 1967 was a watershed moment in organ transplantation; it will be the first human-to-human communication, the first human-to-human heart transplant, as well as a transplantation of the liver, were conducted. Dr. Thomas Starzl, was a pioneer in the field of liver and kidney transplantation performed transplantation of liver. Christian Barnard, Ph.D. conducted the procedure, a well-known neurologist and cardiac surgeon in South Africa.
- In 1968, several significant events occurred, including the Southeast Organ Procurement Foundation was established after the first successful pancreas transplant (SEOPF), a specialist organ transplantation organization.
- In 1977 The SEOPF launched The United Network for Organ Sharing (UNOS) is a 501(c)(3) non-profit organization that pioneered computer-assisted organ matching. Programme of its kind (UNOS).
- The launch of Cyclosporine, an immunosuppressive drug intended to help In 1978, one of the most important breakthroughs in transplantation medicine was the discovery of a way to avoid organ rejection patients who have had a transplant Other drugs that are much more effective at neutralizing the rejection mechanism while maintaining the patient's health have since been established. Vital Immune system capabilities
- A human-to-human heart transplant, as well as transplantation of liver, were conducted. Dr. Thomas Starzl, a pioneer in kidney and liver transplantation, conducted the liver transplant.

- The first hybrid heart transplant was performed in 1981 under the guidance of Bruce Reitz, a prominent cardiothoracic surgeon.
- Dr. Joel Cooper performed the first successful single-lung transplant in 1983 and Joint Resolution of the Senate 78 established Nationwide Tissue and Organ Donors Awareness Week.
- The first double-lung transplant was conducted successfully by Dr. Joel Cooper in 1986.
- The United States alone, 200,000 tissue transplants were completed in 1989.
- In terms of setting criteria for organ procurement, a lot of progress was made in the mid-1990s. In 1998, France conducted the first complete hand transplant, followed by the United States in 1999.
- In 2001, In the United States, the number of living organ donors is increasing and reached a new record.
- The number of living donors outnumbered those who had died.
- A non-profit organization that coordinates the procurement and transplantation of organs (OPTN) established a website link in 2002 that delivers actual information on the total population of individual. In the United States, candidates are looking for transplantation of organs.
- In 2005, France successfully completed the first successful partial face transplantation, as well as Spain completed the first successful total face transplantation in 2010.
- Valencia's Hospital in La Fe, Spain, with Dr. Cavadas and his team, In 2011, a double leg transplant was performed firstly.
- 2012: The initial one robotic all parathyroid transplantation was conducted. Chicago's University of Illinois.
- 2013: The very first effective whole facial transplantation as an immediate life-saving operation was performed in the Gliwice, Poland, which has a section of the Maria Sklodowska -Curie Institute of Oncology.
- The year 2014 marks the first time that a successful uterus transplant has resulted in a live birth (Sweden).
- In 2014, The first effective penis transplant was performed
- In 2014, the Transplantation of a neonatal organ for the first time was performed U.K. In 2014, the federal government's expanded definition of organs included law and rules included Vascularized Composite Allografts. (VCAs).
- Skin gun is invented in 2018, which uses a little bit of skin health that has been generated in a laboratory and Then it was sprayed on the burned skin In this manner, the Skin repairs in days, not months, and does not leave marks [7].

3. Criticality

3.1 Organ donation

It is a legal process where the organ of donor will be removed with his own consent or his near relative when he is alive/after death. Organ transplants is needed to comprehend. A transplant, is a surgical technique used in the setting of organ donation that restores function by replacing a damaged organ or tissue with that of a healthy person. It aids in order to improve the patient's standard of living and providing them with a second chance at life.

Transplantation will only take place if a donor organ is available. While the majority of organ transplants come Patients can also get organs from living donors in addition to deceased donors. People who are still alive donate their kidneys, liver, lungs, pancreas, intestines, or blood while living a normal life. However, the constitution states that the decision on deceased donors must be made by the deceased's next of kin.

3.2 Organ donation help with organ failure

It means second chance for organ recipients at a way of life Optimal health The heart, pancreas, liver, kidneys, and lungs are only a few of the vital organs that can be transplanted into people whose organs have failed. It helps to minimize the need for more expensive care following an organ transplant in order to survive. It assists beneficiaries in resuming their daily lives. A cornea or tissue transplant, for example, may mean the opportunity to see clearly again, or the return of mobility and pain relief.

3.3 Demand of organ transplantation

Organ transplantation is in high demand. India, like the rest of the globe, is experiencing serious organ shortages, with little hope of finding a solution. Renal failure affects 1.5 lakh people each year, yet only 3000 people receive transplants. Similarly, over 2 lakh people perish each year due to liver failure or cancer, and organ donors are in insufficient supply to help them. It's the same for heart sufferers: only 15 hearts are available for transplantation for every 50,000 people who have had a heart attack. As a result, widespread organ donation awareness programmes have been launched to close the supply–demand gap urgently needed in India. The statistics presented here are estimates; the actual figures may be much higher. This is alarming because it means that only a small number of people will be helped and given a second chance in life [8].

Ignorance and a lack of education are the primary causes of India's organ shortage. The benefits of organ donation are not understood by the general public. Today, social media and a variety of other platforms can be used to raise. The importance of raising social The importance of knowing the benefits of organ donors and also how increasing the amount of individuals who enroll for organ donation can help save even more lives. The organ shortage is caused by Misconceptions and myths. Most individuals are adamant about not donating organs. Due to the many misconceptions and superstitions that have been instilled in them, even after death. People with a pre-existing medical condition or the elderly are less likely to donate because they feel they are not qualified or eligible. If you have a serious medical condition, almost everyone will donate any or all of their organs.

3.4 Organ shortage is global problem

Not only in India, but all over the world. There are many reasons for shortage of organ such as knowledge about organ donation many studies which are carried out and many evidences are there which suggest that the people are having poor knowledge. The knowledge level is almost same for different category people such a people staying in urban area as well as rural area are having same knowledge. Students from regular degree and students taking education medical and dental colleges and nursing colleges also having almost the same knowledge regarding organ donation. The knowledge is same irrespective of gender, people working outside also and at home also.

Second reason for shortage of organ is myths regarding organ donation. There are myths that whole body should be intact even after death as to enter the heaven after the death. The religious person will not my last rituals if I do not have all organs. Body shapes changes after organ donation. Many believe that hospital removes the organ without their knowledge and consent and sell it. Many religious leaders are having misconception which they in thrust into their people mind telling about mysterious stories.

Third reason in availability of facility for organ retrieval and transportation facility very few centers working for organ transplantation and most of these centers are situated at metropolitan city. This make difficult for the people far from city to go for organ donation. Even if the complication develops, the nearby clinicians and physician does not take responsibility to take of such patients. That means they are least bothered for same [9].

To many legal formalities which are required to follow by donor as well as recipients. For this the donor may waste their workdays and wedges making them no interested to continue the procedure. Not only donor but medical fraternity also becomes least interested for the transplant procedure. The other reasons are there is no benefit for donor neither money nor any insurance coverage if they developed any problem in future. Government least interest, still government does not understand the importance of organ donation nor able to recognize the shortage of organ donation. So there are no measures have been initiated by them to overcome these problem. No specific policy or separate policies are formed only for organ donation so the procedure as well as donation becomes an easy or smooth procedure. The medication required for sustaining organ or to avoid rejection of organs many immunosuppressive drugs required which are costly so many times people find difficult to go for procedures as it is expensive. There should be measures taken from government to issues these medicine in subsidize rate. Awareness program and campaign are mostly carried out in the city level by NGOs which are comparatively vey less that is not enough to bring the changes among the people.

As people have poor knowledge does the attitude and practices towards organ donation. Many times people registered themselves for organ donation but does not make their near one aware about it. Which makes organ removal more difficult after death.

Scams of organ donation many people take disadvantage of this needy one and exploit the poor by selling and buying the organs. Making duplicate papers and creating problem for same. Awareness about the shortage of organ as people are not aware about organ donation so they even not aware that there is shortage and we should do something to overcome the problem. It even true with social media no media will take interest for doing propaganda of organ shortage unless any celebrity is involved in it. But they will be in front to advertise or giving news of scams by adding

very nonspecific things in it. According to study there are few myths such as organ donation is not necessary in India, my religion discourages organ donation and organ removed will disfigure the body and affect cremation. Rejection of organ is also measure problem as people are worried about it. It requires special care while doing organ transplantation certain tests are carried out like tissue typing and matching, typing and matching of red blood cells and leucocyte cross matching etc. The number of tests also different according to individual requirement. Many times the test depend on the individuals defense mechanism some cell are active and fight and produce antigens against antibody very fast while some cells act as non-self-cells which will not require a tissue matching. It is also if we wanted to prevent rejection it is important that patients own relative especially those sharing a common genetic formation are come forward for organ donation. So along with this education of people and making them aware about it all thing is necessary.

According to Organ Retrieval Banking (ORBA) among many other country who is facing the organ shortage and India is one among them who is facing an acute shortage of organ. There are many reasons for this such as prevalence of myths and superstition regarding organ donation. The one more reason is poor knowledge regarding it. Many studies also found that not only rural but urban people also having poor knowledge about organ donation. There are also few studies which suggest even medical and nursing student has poor knowledge. Other reasons for shortage are unavailability of resources for donation and limited support for money incentives. The lack of knowledge and People's knowledge of sick organ donation is low, and many are ignorant of brain death. How it is diagnosed how the organ from brain death person can be utilizing properly, practices like kidney rackets and exploitation of needy and poor procedure [10].

The problem is not only related to donors but also training regarding whole procedures. A study carried regarding this said that the physician's attitude towards the renal transplant patients and their follow up is very important. The study also specifies that during the treatment of such patients proper monitoring of the immune suppressive drugs level is important for that well equipped laboratories are needed as well as experts and proper protocol is needed which is not available.

According study carried out the regarding organ donation also suggested that those working in this team should have proper training regarding whole procedure which will help for its success.

Dr. Shingare, Director of DEMR Maharashtra in his opinion on kidney scam says that there should be campaign to spread awareness about organ donation.

Dr. Prashant Borahade on the day of organ donation said that convincing people for organ donation is a challenge, but if we are preparing people in advance the myths will be dispelled.

To increase organ pledges significantly state should adopt the law and guidelines and report data to make the registries more effective says Dr. Bhandari the director of NOTTO. Highlighting the need for capacity building and spreading awareness the aspects specified are all should worked on for a smooth and transparent donation mechanism.

Even now many feel pledging organs may deprive a donor of the best of treatment. A family may get harassed while claiming a near one's body. There are fear that organs may go waste due to an inefficient system and time lag. People want to know how organs are being used.

In India, 1.5 lakh people need kidney transplants, with just They will be distributed to 3000 people. Just one in every thirty people receives a kidney transplant, and

90% of those who wait die for a donor. Seventy percent of liver transplants need a live donor, while thirty percent require deceased donors. As a result, increasing organ donation rates is critical for giving people a second chance at life.

Comprehensive & scientific knowledge is needed for Organ and tissue transplant. They include assessing and managing Educating and counseling. If they are dead donors, transplantation receivers, donors who may be interested, or alive donors, they can take care of themselves, live a healthy life, and die happily when the time comes is close. For improving post-transplant & QOL this is important.

3.5 Legal position on organ donation

Organ donation is permitted under Indian law, man. The Indian Parliament passed the Transplant of Human Organs Act (THOA) in 1994, legalizing “death” and organ donation.

The gradual and permanent cessation of all brain functions is known as brain death. In cases of brain death, a person’s essential body functions can be preserved in a ‘intensive care unit’ for a limited time.’ Artificial help is provided to such people in order to keep their organs alive. Oxygenated and stable until they are removed. These patients’ organs may be transplanted into terminally ill patients.

Health worker have a significant impact on the development of an effective transplantation programme They’re vital members of the team that uses scientific, organizational, and human resources to treat patients and their families, with the aim of organizing, caring for, informing, and performing Donation of organs and tissues, as well as transplantation studies. As a result, health care professionals must be well-versed in ethical values and should have expertise at their disposal to identify patient complications and social problems relevant organ donation and transplantation Future research into the positions and duties of health staff is hoped for by the researchers.

4. Problem on hand

The kidney was the 1st human organ to be successfully transplanted in 1954. Long-term and intestinal organ transplants started in the 1980s, following active liver, heart, and pancreatic transplants at the end of 1906. Core, kidneys, brain, liver, lungs, pancreas, intestines, and thalamus transplants have all been successful. Among the tissues are the bone, tendons, skin, eyes, heart muscle, nerves, and veins are all examples of connective tissue. The kidneys, liver, brain, eye, and orthopedic tissue are the most frequently transplanted organs, followed by liver, heart, cornea, and musculoskeletal tissue [11].

Skin transplantation is dealt with in the early stages of transplantation. The first rational account Sushruta, an Indian surgeon who lived in the second century BEFORE CHRIST, gave this advice. In the nose reconstruction, he performed a rhino-plasty with autographed skin transplantation. The success or failure of these procedures is unknown. Surgeon Gaspro Tagliacozzi of Italy performed excellent skin auto-grafts centuries later, but he struggled with allografts on a regular basis, providing the first sign of rejection centuries before the method was fully understood. In 1954, at Brigham and Women’s Hospital in Boston, the very first effective organ transplant was conducted which he credited to the “heart and strength of individualism.” The procedure was carried out by For his work, Dr. Joseph Murray was given the Nobel Prize in Medicine [12].

Eduard Zirm (Olomouc eye clinic) performed the first cornea transplant in 1905, making it one of the first popular types of transplant surgery. The establishment of eye banks was crucial to the success of cornea transplantation. These are non-profit organizations that organize the distribution of donated corneas to surgeons and provide eyes for research around the world. In 1967, South Africa was the site of the world's very first heart transplantation. In the year 1968, at Sydney's St Vincent's Hospital, the first successful lung transplantation operation was conducted in 1981 by Stanford University's Dr. Bruce Reitz on a patient with idiopathic pulmonary hypertension. Thomas Starzl conducted the first human liver transplant in 1963, but the pediatric patient died during the procedure as a result of uncontrollable bleeding after multiple attempts by various surgeons failed, a 19-month-old girl with hepatocellular cancer was transplanted by Starzl, who lived for more than a year before dying of metastatic cancer. Despite advances in surgical methods, liver transplantation was still considered experimental until the 1970s, with just a 25% one-year patient survival rate. Thanks to advances in medicine, liver transplantation became a popular clinical practice in the 1980s, Sir Roy Clane, Professor of Surgery at Cambridge, discovered cyclosporine and it was used to treat both adults and children with suitable grounds [13].

5. Need of the study

As per WHO principle 3- Donations from the deceased should be established so that their full therapeutic potential can be realized in order to reduce the risk to living donors, as much as possible. The effectiveness of deceased donation programmes is dependent on communities and health professionals being more knowledgeable about donation and transplantation.

Despite the extensive use of deceased donor materials, living donor donations are needed for some types of transplants or to compensate for the limited supply of deceased donor materials in order to meet patient needs. Despite the fact that living donation carries certain risks for the donor that aren't insignificant, it is nevertheless practiced.

Since finding Human tissue for transplantation from deceased or living donors, as well as allogeneic For both the recipient and the donor, Since transplantation can pose ethical and safety concerns, health officials should enforce strict controls and adequate monitoring to safeguard patients. The Guiding Principles require that donors and beneficiaries be treated as humanely as possible.

Over 500,000 people from India are expected to need organ transplantation in the United States.

- Due to organs aren't available 5 million people perish.
- Due to liver disease 2 lakhs people die
- With heart diseases 50,000 people die
- From 150,000 people only five thousand get kidney transplant
- Ten lakhs Individuals who are corneal blind and awaiting transplantation

Despite this, Per year, less than a thousand deceased donor transplants are performed, a tiny and negligible amount as compared to global statistics. Any of these patients may be eligible For organ transplantation A living donor. The others are almost certainly going to die while waiting for an organ transplant.

To comprehend understand Before you can donate an organ, you must first learn about transplanting of organs. A graft is a medical operation that involves the removal of a part of the body. That restores the function of a damaged organ or tissue from one person by replacing it with healthy tissue from another person. Despite major advances in medical science, transplantation remains the only alternative in some cases. Transplants increase a patient's quality of life and provide them with a new lease on life.

A transplant may Only if an organ from a donor is available can this procedure be carried out. Although the majority of organ transplants come from deceased donors, patients may also get organs from living donors. Living individuals will donate a kidney, a portion of their liver, lungs, pancreas, intestines, and blood while continuing to live normal lives. However, according to the constitution, the decision on deceased donors ultimately lies with the relatives of the dead.

Because of organ A transplant also means a second chance of life for recipients. The heart, the pancreas, the liver, the kidney and the lungs are only a few of the essential organs that can be transplanted into people who have failed to have their organs function properly. For certain people, receiving an organ transplant means no longer having to undergo expensive routine operations to stay alive. Many people are able to regain their daily lives as a result of it.

Past Thousands of people Since first successful organ transplantation 50 years ago, their lives have been extended and their health has improved in the United States as well as the rest of the world. Thanks to transplanted kidneys, hearts, pancreas, livers, and other strong organs.

The blood donation and transplant program's goal is to utilize all donated organs to prolong or enhance the lives for transplant recipients. As a consequence of advances in fundamental and clinical research over the past several decades, organ transplantation has become the sole treatment for a large number of end-stage organ-specific illnesses. However, there are insufficient organ donations to satisfy the need. Furthermore, some organs may not be recoverable, others may not be transplantable, and some organ transplants may fail, all of which add to the supply-demand imbalance. The health of the donor, the cause of death, and functional or anatomic abnormalities discovered in a prospective donor or donor organ are all factors that influence whether or not an organ is appropriate for transplantation. To date, most organ transplant research has concentrated on transplant recipients and ways to boost transplant and post-transplant health outcomes. It has taken a long time for improvements in the number and quality of organs eligible for transplantation to occur, with the majority of them owing to changes in local practice criteria. Researching deceased organ donors and organs obtained from deceased donors has emerged as one way to find novel approaches to increase the amount and quality of organs that can be successfully transplanted, thus increasing the number of patients who obtain a functional organ.

Many lives could be saved if organs from cadaver donors were available. Every year in India, thousands of people die as an outcome of the difficulty or inability of transplanting unpaired organs like the heart, liver, and pancreas from living donors.

Progresses Despite the fact that medical science has made critical human organ transplantation possible, millions of people in India are still losing their lives due to a

scarcity of donors. Every year, In India, more than 1.5 million people have been identified with end-stage renal disease as a result of cancer. However, only a few thousand transplants are performed each year, and patients are forced to rely on dialysis to survive.

6. Organ donation statistics

6.1 Global

The database on donation and transplantation is the most extensive collection of worldwide data derived from official sources on organ donation & transplantation activities, as well as legal and organizational information. Organ transplanted annually (2016): 1, 35,860. It increases over 2015 by: 7.25% Actual deceased organ donors in 2016 are: 34,854, Transplants per hour in 2016 by: 15.5% Living kidney transplants 2016 are – 40%, Actual DCD (deceased 2016 are – 19%, Living liver transplants 2016 are – 19%.

More than 36,500 transplants were performed in 2018, giving patients, their families, and their communities new leases on life (from more than 10,700 deceased and 6800 living donors).

- In 2020, the number of people who received transplants decreased by 13% compared to 2019, while the number of donors decreased by 16%.
- Around 1650 Australians are waiting for the purpose of a renal transplantation, There are more than 12,000 people on dialysis, even those in serious need of a transplant.
- Thanks to the kindness of 463 dead organ donors and their family members, 1270 Australian lives would be saved by organ transplants in 2020.
- 14,352 patients have got transplantation from 5029 dead organ donors since the programme began in 2009.

Between 2009 and 2018, Canada's dead donation rate increased by 42 percent, despite the fact that the quantity of people who have donated organs after they have died decreased by 41 in 2018 similar to 2017, the number of deceased donors, per million people grew from 14.5 to 20.6. (pmp), resulting In 2009, there were 487 dead donors, and in 2018, there were 762 dead donors. The quantity of dead organ donors has increased at the fastest rate since 2013. Despite the fact that Canada's average number of transplanted organs is lower, Up to 8 organs can be obtained from a solo dead donor [14].

7. India

Organ donation is permitted under INDIAN law. The NDTV-Fortis more to give campaign is aimed at increasing organ donation awareness. Organ shortages claim the lives of 5 million people per year. Just 1000 people with liver diseases receive a liver transplant. 2, 20,000 people are waiting for kidney transplants, but only 15,000 are

successful. Why INDIA needs to donate organs: -People waiting for corneal The number of transplants is in the tens of thousands, while the There are also tens of thousands of people waiting for heart transplants. People in need of lung transplants: 20,000.

Among the In India, The group of individuals who require organ transplants vs. the amount of organs that are available is vastly different. Around 1.8 lakh people are reported to be affected by renal failure, but only 6000 renal Every year, thousands of transplants are performed. An approximate 2 lac have been identified with end-stage renal disease as a result of cancer, with only 10–15% of them saved by a timely liver transplant. As a result, India needs approximately 25–30 thousand liver transplants each year, but only about 1500 are performed. Per year, 10 to 15 heart transplants are performed in India, despite the fact that 50,000 people die of heart failure each year. Every year, 25,000 cornea transplants are performed against a demand of 1 lakh.

Between 2013 and 2018, India reported 49,155 transplants, including 39,000 There were 10,155 surviving organ receivers and 10,155 dead organ recipients. Organs donated included kidneys (32,584, dead donor = 5748), The liver (6416, deceased donation = 2967), heart (895, deceased donation = 895), lung (459, dead donation = 459), pancreas (78, dead donation = 78), and small intestine (dead donor = 8) were all transplanted. As per information from 2018, In terms of overall transplantation, India was the making it the second largest transplanting nation. The current state of dead donor organ transplants, as well as its obstacles and remedies are discussed in this article [15].

The health-care system at the district is a top half organization that acts as a link among state and regional systems mostly on one hand, and networks in the periphery on another like PHC and sub-centers on the other. It gathers data at the state level and adapts it to local needs before sending it out to the periphery. As a result, it assumes the position of a manager and raises a slew of general, operational, and administrative questions about health-care management. The district official with ultimate authority is the District Medical and Health Officer is another name for the Chief Medical and Health Officer is the person in charge of the medical and health aspects of the health and family care programmes are overseen by these officer in the district and are also DMOs and CMOs are two terms for the same thing. They are responsible for carrying out programmes in accordance with policies developed and finalized at the state and federal levels.

The In rural areas, sick people and others who have particular complaints or who have been referred by As their first point of contact with a licensed public sector doctor, Primary Health Centres are sub-centers for curative, preventive, and promotional health care. In hilly, tribal, or challenging areas, a typical Primary Health Centre with 4–6 indoor/observation beds serves. The city has a population of 20,000 inhabitants, while the plains have a population of 30,000. It serves as a referral center for six sub-centers, sending patients to the In the sub-district and district, there are Higher-order public hospitals and Community Health Centers (30-bed hospitals).

In India, the idea of a Primary Health Centre (PHC) is not new. The Bhore Committee proposed the PHC as a basic health unit in 1946, along with goal of supplying rural residents with comprehensive effective therapeutic and protective healthcare as close to the people as possible.

Indian health planners imagine as the proper structure for delivering medical facilities to the village community, PHC and its Sub-Centres (SCs) should be used. PHCs should be formed in community development blocks to render comprehensive medical care to population in remote areas, according to The 1st conference of the Central Council of Health was held in January 1953.

These clinics serve as outlying health-care organizations with almost no involvement from the communities. These centers have been increasingly criticized for not being able to offer sufficient health care, in part because they are understaffed, underequipped, and lacking basic facilities.

It was proposed that the PHCs be reorganized to provide more efficient coverage. According to the 6th 5 Year Plan, one PHC per 30, thousands remote area communities one PHC per 20,000 in the lowland residents in mountainous, regional, and underdeveloped areas (1983–1988). The United States has founded 23,109 Primary Health Care Centers (PHCs) since that time (In September of 2004).

Primary care clinics (PHCs) are the backbone of villages healthcare institutions, serving as the first point of contact for those who are unwell and are sent to sub-centers for healing, protective, and promotional medical care. Six sub-centers use it as a referral center, sending patients to the appropriate location. There are Community Health Centres (30-bed hospitals) and higher-level services available at the sub-district and district levels, but no public hospitals. There are 4–6 indoor beds reserved for patients.

In a number of rural dispensaries, PHCs have been created. A PHC has a Medical Officer on board, as well as 14 paramedical and other personnel. The country had 22, 370 PHCs in use as of March 2007. A medical officer, two male and female health assistants, as well as health workers and support staff, are assigned to each PHC. State governments formulate and sustain PHCs as part of the Basic Minimum Services Programme /Minimum Needs Programme, which aims to improve preventive and promotional aspects of healthcare.

8. Methodology

The study adopted pre-experimental research design. This involved Health Workers Working at Primary Health Centers of Pune District. Questionnaires were used as data collection technique. A work site research was conducted among 405 health workers working at primary health center. Probability sampling technique was used for selection of health workers as samples.

Consisting of assessing the existing knowledge and attitude of health workers regarding organ donation. The pretest was administered to 405 samples by using self-administered structured questionnaire. Based on the eligibility criteria, after obtained informed consent from the health workers they have been recruited to intervention by using simple random technique. Assessed the understanding and mindset of health professionals on organ donation by employing standardized questionnaires that are self-administered after the 7 days of intervention.

9. Result

Result shows that, 46.7% of the health workers had poor knowledge (score 0–8), 53.3% of them had average knowledge (score 9–17). In posttest, 6.7% of the health workers had poor knowledge (score 0–8), 49.1% of them had average knowledge (score 9–17) and 44.2% of them had good knowledge (score 18–25) regarding organ donation. This shows that after short film and information booklet, there is remarkable improvement in the knowledge of the health workers regarding organ donation. As health workers got continuous education about various health related information

it will be defiantly helpful for gross route level health sectors as well as it will be useful for community people for their promotive, preventive and curative health aspect also.

10. Conclusion

In India, the general population is unaware of the benefits of organ donation for patients and their families. The maximum number of people required are in their twenties and thirties. As a result, receiving a transplant can prevent an entire family from becoming overcrowded.

As problems are existing different measures also carried out to overcome the problem such as improving knowledge and attitude by providing health teaching to people through health workers. Availability of the facility for diagnosing brain death and organ retrieval and transplantation. Legal measures are also adopted by different countries to avoid organ scam and fraud. Research after going through all this thought it will be beneficial if we provide knowledge to the community people not only from urban but also rural area. And the comparison will help to understand the area which is having poor knowledge and required more emphasize. Since health workers are the mediators in rural India, the researchers intended to educate health workers concerning the significance of organ donation. Therefore, the researcher selected the health workers as a sample. Health workers can make a change in the rural public mindset and motivate people to do organ donation for the needy one. Health workers are more close to the general public. They are the one to whom people are sharing their common thoughts, their health issues. As a confident health workers will provide a good suggestions as well as equitable distribution of care to the rural people which improve the health of the public. As a familiar in the rural area health worker can give adequate knowledge about organ donation so that public attitude related organ donation can be change. When public attitude will get change in rural area that will encourage to do organ donation which lead to saves person life.

Les Brown said, "You should be researcher to be teacher, if you don't able to research then you will be not able to teach". This old proverb had always inspired me to move ahead and explore. I had personally experienced while working in the clinical setting as well as I have seen patients waiting for a donor and many times they die waiting for an organ donor. I always wonder why in spite of appraising the importance and need people taking step back. This forced me to take up this topic and to search the root causes other than emotional attachment or pain of losing. At the end, as a community health nurse I found that lack of awareness and false beliefs among the community pulling them back. As community health workers are the working close with community. They understand the community people's point of views. Health workers are the key factors to change the community people's attitude. Hence teaching them can bring a new ray of light in their life especially adults and will help to develop a positive attitude towards organ donation through health workers.

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Author details

Mangesh Jabade
Symbiosis College of Nursing, Symbiosis International (Deemed University), Pune,
India

*Address all correspondence to: mangesh@scon.edu.in

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