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Organ Donation

Cashea Rigney
crigney@murraystate.edu

Cashea Rigney
Murray State University, Casheariney@yahoo.com

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ORGAN DONATION

The pros and cons of organ donation, the way some organs are transplanted and made, and statistical facts on them.

Cashea Rigney

ABSTRACT

Organ donations have a lot of controversy surrounding it. There are many reasons for and against donations. There are many who research different ways to extract organs and tissues, and others who research fake cells and tissues. We hear about religious and spiritual reasons some give for giving organs, transplanting them and arguments as to why it should not be done.

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Cashea Rigney

Murray State University

Bachelors of Integrated Studies

Healthcare Administration

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This paper is being submitted to your department to satisfy research of this topic for the purposes of a bachelor's degree in healthcare administration.

Organ Donation

Important facts about Organ Donation

There are many types of organs that can be donated, this includes the intestines, heart, kidneys, lungs, pancreas and liver. There are some tissues that can be donated as well such as heart valves, skin and corneas. These types of donations can be used for people who are blind, have a type of organ failure and people with serious burns, and diseases. People who are donating their organs also have the ability to specify which organs they would like to donate and which of those they would not like to donate. There is also the option for patients who are still alive to donate part of an organ to another person such as part of their liver or a kidney.

There are certain steps to take to ensure a donation, such as the necessity to tell your friends and family. You need to also tell your doctor that you wish to become a donor. A very important thing that is needed is to assign a healthcare proxy, or power of attorney for medical reasons should anything befall you, this document tells others who you trust to make the medical decisions for your life. You will also need to fill out the card on the back of your license stating that you wish to be a donor. It is also important that you keep multiple copies of this paper work and

hand them out to your family, doctor and also keep one in your car. It would also be wise to make a living will and sign it. An advance directive would not be a bad decision either, these are legally binding documents that state what your wishes would be, should you become incapable of communicating. It is also important to remember that just because you are willing to be a donor, this does not change the care you receive, the first priority will always be to try and save your life. There are many things that are looked at when choosing a who will receive an organ such as, time spent on the waiting list, the severity of their illness, and other medical factors. The celebrity and economic status have no bearing on who is chosen as a recipient. Some other important facts to remember is that there is no charge to your family should you wish to become an organ donor, there is not an age limit, your body will not be disfigured for your funeral, and most religions are in support of organ donation.

Important facts of Organ Donations

Tissue and organ donation is a lot more important than many of us believe, not only for the individuals it effects directly but for society as a whole. There are nearly118.000 people waiting for a transplant so that they can live their lives healthier and more productively. It is truly a matter of life and death for some people who are at the end stages of organ failure. You can add these people who are at their last hope to the millions of people whose lives are made better through

donations of corneas, tissues and organ donations, so that they are able to see, live and move better. Donations of organs or tissues affect far more than just the donors and recipients, it also affects the lives of families, colleagues, friends and even acquaintances who support and love those who are in need of a transplant or those who donate and get to benefit from renewed health and an improved life. Organ donations provides life enhancing and life giving opportunities people who have no other options. The need or organ donations is getting larger. There is a way to extend the number of organs that are available, that is to make the number of donors larger. Meaning, that we should safely and carefully consider those individuals who were not included in the past. "It is the human aspect of donation and transplantation—helping people. It is the right thing to do." (Moritsugu).

Dave Markowitz helps individuals who suffer from depression or anxiety. He shows them how to transform their illness into health. He uses energetic healing arts and medical intuition. This is done via skype, the web and in person in Portland, Oregon. In this article he gives us a look inside the minds of humans. He tells us some of the reasons for highly sensitive persons.

Markowitz says to imagine your souls as a puzzle of 1000 pieces. Some of the parts are light and some of the parts are bad. The dark we are told represents the “bad” parts and the light represents the “good” parts. Our society tells us we should disown and repress the 'bad' stuff. Highly sensitive persons feel deeply and

do not repress these darker parts. Markowitz explains that we should not repress this side of ourselves. “Conscious or unconscious repression of the shadow self is denial of what exists and is detrimental to our process of healing and becoming whole, but there comes a point when we've got to wonder, "Haven't I expressed enough? I've been at this for decades" (Markowitz).”

The most common emotion that highly sensitive persons feel and get over whelmed about is grief. Grief is a strong emotion and one that is very hard for some to deal with. It is a natural response of the body to feel grief at a loss. It can be any kind of loss. Some people just feel more deeply than others. There are different forms and degrees of loss. This does not, however, say that all people suffer from depression.

People who have more normal levels of sensitivity and that have been taught to repress their grief, are doing so by negatively affecting their brain chemistry. This will sometimes be diagnosed as depression when it is evaluated scientifically. Markowitz explains that not enough people are looking into this chicken or the egg causality dilemma. It is just another piece of the human puzzle that they are unable to acknowledge, express or feel this very human emotion.

On the other hand, those persons who are taught to honor and express their grief, will keep the rivers and streams of their emotions open. He tells us that people

whose energy is open and unblocked will be healthier than others who are closed off due to fear, guilt, machismo or shame. According to Markowitz' jig saw puzzle analogy, those persons who leave their energy open and let it flow through are the persons who accept and honored both the light and dark parts of their puzzles. They have owned all aspects of self. These persons may be more whole and typically more vibrant and healthy.

Everything is different for highly sensitive persons. These highly sensitive persons, are also called empaths. These empaths know that repression of emotions can and will lead to illnesses, but they do not repress. Most of them are dealing with the exact opposite, they deal with too much emotion. It is a sad state, but highly sensitive persons have realized that not just any medications will work. There are some forms of traditional medicine or mind-body therapies and energy modalities that don't address these concerns very well. Some highly sensitive persons go to many well intentioned practitioners and do the catch and release and catch and release without ever finding or gaining relief. It is important to know that this is not because these persons or anyone is doing it wrong, are unemotional, unfeeling, un-spiritual, unloving or bad. It is quite the opposite, most highly sensitive persons are among the most beautiful, spiritual, intelligent, heart-centered people on the earth. They are nurturers of other people. These persons are energetic and emotional sponges. They feel deeply and completely. That is why

that no matter how much the persons feel, release and embrace the grief, what is cleared away will be reabsorbed by others, if one does not get down to the bottom of what is causing the grief. This overly empathetic nature is the root that will need to be called to attention. The symptoms will simply continue to reoccur unless the problem is tackled head on. Without this help, these persons will go from modality to modality, or book from book, and even become work shop junkies. Yet, they will never find permanent relief.

Not finding and fixing the cause of these emotions, these persons will start back at one again. Highly sensitive persons are carrying around heavier weight than those of "normal" persons, because they are sponges and absorb the weight and energetic state of others. If a highly sensitive person feels lonely, stuck, unfulfilled, unmotivated, anxious, or physically unwell, it's most likely that they have taken on these emotions and feelings from another person. For those persons who have an intuited percentage of how much you are dealing with that is not yours, or that are highly empathetic, they can take the energies of cities, or families, cultures and maybe even the planet. These persons are looking for healing in the wrong places and this is also why they are still looking for answers. There are specific tools these person need that are intuited by other highly sensitive persons. These other apathetic persons understand what highly sensitive persons, it

takes them to know what someone like them is going through in order to be able to give the help they need.

Markowitz attributes it to being the same as asking a Priest for marriage advice. He tell us that he learned that taking on too much energy from other sources is like trying to run a marathon with people on your back, and that of course someone would be fatigued carrying around all that weight. Those persons who take on others anger energy are likely going to have tense muscles and stiff joints. Some people take on surrounding people's mental confusion and suffer from what is called anxiety. If concentrated thought creates matter and people are carrying the weight of everyone and everything on their shoulders, you will definitely be carrying around some extra pounds. For those people who take on others grief, they will of course suffer from what is known as depression. Highly sensitive persons did not learn to be this selfless, they were born this way. Markowitz believes that we are all born highly sensitive to energy, and that babies cannot really understand others, but they feel what is true, they feel when others are sick or happy. As infants we figure out that our actions have consequences and effects on others energy. When we laugh, others may laugh as well, when we feel sad, worried or fearful others sense it and feel the same. Some persons like this feeling of responsibility and expand on it. People then turn into healers and confidants,

while others shut their selves and emotions down. He makes a joke that they become lawyers.

One of his patients had her experience that she shares, “'Laura' has clear recollection of being 4 years old and 'knowing' her mother wasn't feeling well. Her empathic abilities let her know this to be true, and because all children want to receive, be, and express love, they intuitively reach out to others. Laura could feel that connecting with her mom with sound and touch helped her mom feel better. Her mom was in a very bad way, and Laura placed her hands upon her mom's head. She stayed there for a while, intuitively feeling that this was helping her mom. And to Laura's 4 year old self, it was. Unfortunately, Laura had taken on a tremendous amount of energy and had been unwell from that point onwards, later diagnosed with depression and suffering from numerous other ailments for many decades until she found me (Markowitz).”

The thing that he found to be the greatest help and powerful is that no one can be responsible for another person or the path they are on. Laura’s mom had a path, but then Laura took on her mother’s path as well as her own. This explains why she was so anxious, unhealthy and depressed. She had the best intentions, but it didn’t help Laura in this lifetime, and it also delayed her mother’s soul-level experience. This perception of being responsible for her mother stayed with Laura for years, she always put herself last and the needs of others first. He was able to

change her thinking that she needed to be responsible for others, in order to have their love and attention. He was able changed her since of responsibility to one of compassion and one that sees the bigger picture. He showed her how to act from that awareness. He also helped hers with the quality of connection she had with others and at the same time, not let her take on the energies of those persons, to be more of a funnel than a sponge. He wrote a book called, "Self-Care for the Self-Aware" and these steps are in this book.

For those persons who want to heal, they have to be an active participant in changing their energy levels and intake. They need to know and understand that their actions may have had a part in their condition, they are not to blame, they didn't know any better, and they were just children.

Doctors can only lead the way. Markowitz can help them with the process, but ultimately it is up to the person and their persistence, surrender and diligence. Like any other personal trainer a good health coach pushes them through to change, most all persons will have some resistance. It may not be easy, but these persons must work on the level that their body needs, not what they want. Very few people can reverse decade's worth of damage, and heal overnight. They may be able to alleviate or decrease some symptoms, but a deep transformation will take a lot of time, action and commitment. Markowitz explains that some people can have a radical shift in short periods, this is the exception to the rule. The level of healing

for the person in comparative to their willingness to change, see their past as stepping stones that are a path to being a better person, rather than a projection of the future.

Markowitz says that even though some think depression is genetic, he will not argue against that, he simply wants to expand on this condition that so many struggle with. In his opinion even if depression is genetic, epi-genetics prove that susceptibilities to depression do not always show up or continue. Though some believe years of therapy and medication is the only way to help depression, he in no way is telling people not to take or to reduce their medication or therapy. If this works for certain people he wishes for them to continue to do what it takes. What he suggests can be done in accordance with medication and therapy.

Hucke, Stephanie, Wiendl, Heinz, and Klotz, Luisa wrote this article on the effects on daily salt intake for multiple sclerosis pathogenesis. Multiple sclerosis (MS) is an autoimmune disease of the central nervous system (CNS) that is characterized by peripheral inflammatory processes, blood-brain barrier (BBB) breakdown, and immune cell infiltration into the CNS, leading to both axonal damage and demyelination, and ultimately resulting in disability in MS patients (Hucke, et al). It is known that there are several genetic factors as well as environmental factors, such as: viral infections, vitamin D levels, and geographical location. There has been a debate on how the "Western diet" influences MS. As it is known for high

salt intake has already been acknowledged in other pathophysiological conditions, such as hypertension and cardiovascular diseases.

There is no clear evidence whether the consumption of certain dietary components definitely influences autoimmunity, even though these diseases are associated with nutrition. A recent study evaluating two independent cohorts of MS patients offers the first evidence of a potential association between dietary salt intake, as determined by urine excretion, and MS disease activity. MS patients with an increased dietary salt intake displayed higher relapse rates as well as increased numbers of new MRI lesions compared to patients with moderate dietary salt intake. Of note, serum sodium levels remained relatively constant under different dietary conditions and hence could not be linked to MS disease activity (Hucke, et al). Two studies have identified where a high salt diet causes profound aggravation of clinical signs in the animal model of MS, experimental autoimmune encephalomyelitis (EAE), by promoting pathogenic T-helper 17 responses. In the animal model of MS, dietary sodium can intensify CNS autoimmunity in a strain- and sex-specific fashion, consequently providing the first experimental evidence of an interaction between genetic and environmental factors in the context of sodium-induced promotion of CNS inflammation, this is shown by a very recent study.

Cells

T cells and myeloid cells play key roles in determining the local immune response in MS. It is known that T cells are primed in the periphery before migration to the CNS where they initiate disease, so this means that the initiation of the T-Helper 17 cells is crucial. They are the first ones to cross the endothelial cell-lined blood brain barrier to enter the central nervous system.

People who eat fast food are more prone to having an elevated ratio of pro-inflammatory IL-17+/anti-inflammatory Foxp3+ T cells in peripheral blood, than those who don't regularly eat fast food. These IL-17 levels in the plasma relate to the amount of salt intake. There have been studies that reveal that HS triggers activation of mitogen-activated kinase (MAPK) and increases T-cell proliferation as well as IL-2 production under stimulatory conditions. It can also restore function in repressed T cells. High salt consumption causes an elevation in TH17 and this increase response is mediated by the activation of and induction of nuclear factor of activated T cells 5 (NFAT5, tonicity-responsive enhancer binding-protein (TonEBP)) and serum glucocorticoid kinase-1 (SGK1)). These studies suggest that increased NaCl (sodium chloride) levels can alter the differentiation potential of T cells into autoreactive T cells, which in turn may contribute to enhanced CNS autoimmunity.

Pro-inflammatory myeloid cells, like monocytes, macrophages and CNS-resident microglial cells, are an important role in the formation and maintenance of CNS

inflammation. High salt and high NaCl concentrations, stimulates the phosphorylation of members of the MAPK pathway, like c-Jun amino-terminal kinase (JNK), and extracellular signal-regulated kinase (ERK. It also promotes increased production of nitric oxide and tumor necrosis factor-alpha (TNF-α), which boost the capacity of macrophages to clear bacterial infection. Some patients who have bacterial infections may also have an increase local pro-inflammatory macrophage activation.

High NaCl conditions activate caspase-1 that leads to IL-1α and IL-1β production upon lipopolysaccharide (LPS) stimulation A recent study has shown demonstrated these findings by showing that high salt potentiates LPS-induced macrophage activation both in vitro and in an LPS-mediated acute lung injury model in vivo. It has also confirmed that NaCl-treatment induces a pro-inflammatory phenotype in macrophages in vitro and under high salt diet in vivo. There are Salt-sensing kinases, such as: sucrose nonfermenting-1-related serine/threonine kinase and SGK1 that act as sensors of extracellular Na+ gradients. Inflammatory stimulus induces SGK1 expression in THP-1 monocyte contributes to a pro-inflammatory phenotype. Even though the kidney is known as the regulator for salt and water, Na+ is also stored in the skin and the macrophages since it as a chemotactic stimulus and migrate towards it. These studies show that extracellular sodium levels influence myeloid cell responses by promoting a pro-inflammatory

phenotype, which may contribute to the aggravation of CNS autoimmunity (Hucke, et al).

The epithelial wall of the intestine has an important role in the maintaining of tolerance of self-antigens. There is no vivo data that shows the role high salt intake has, but there is a known role in vitro. Induction of Na+-glucose co-transport in a human colon epithelial cell line will activate the Na+/H+ exchanger 3, then Na+ absorption in the small intestine, modulation of tight junction-associated proteins. When this has an increase in intestinal permeability, foreign immunogenic antigens will be entered and might contribute to the induction of autoimmune processes. This may also, induces the production of pro-inflammatory cytokines.

Endothelial cells will respond to small increases in sodium by obtaining a stiff morphology that may affect their function. In stress situations adding NaCl will raise the responsiveness to TNFα of human endothelial cells and increased THP-1 monocyte cell adhesion. Mice that receive high saltwater show enhanced connection of mingling CD11b+ cells to the carotid bifurcation. This helps show that myeloid cells react better to the salt activated endothelial cells. Using saltwater treatment, the E-selectin and VCAM-1 are downregulation on murine endothelial cells in vivo. CCL2 (MIP1) is downregulated, this helps leukocyte bonding to the brain microvasculature and enables transmigration into tissues.

Sodium alters the phenotype of endothelial cells, this may promote immune cell infiltration in the setting of CNS autoimmunity.

They tell us that there is one hypothesis is that a high salt diet might influence the gut microbiome composition and the development of autoimmunity. The microflora of the intestine promotes pro inflammatory and regulates T cell responses in EAE. To sufficiently change the microbiome composition, all you need to do is change your diet for five days to a plant based or animal based diet. There was a study done where human fecal microbial communities were transplanted into germ-free mice. They went from eating a low fat plant rich diet to one that was rich in fats and sugar. It only took a day to show that eating of microbiota as well as the expression of genes associated with metabolic pathways had changed. The mice became obese and had a larger production of the Th17 cells. These studies show salt could stimulate the growth of CNS autoimmunity, by changing the gut microbiome. It is still unproven that targeted corrections of the gut microbiome by reducing salt intake and adding particular probiotic bacteria will be beneficial to disease activity in autoimmune diseases including MS. This research will certainly gain more interest in the next years. They say that an increase in sodium intake alone is not sufficient for an increased risk of CNS autoimmunity. Countries like Japan and China, have a low rate of MS incidence compared to Western countries. In most societies there is a higher than is

necessary consumption of salt intake, this causes an increase in cardiovascular disease. If a person were to lower their intake a small amount they could decrease their risk of cardiovascular disease by 25%-30%. Although there have been studies on the effect of large salt intake, there is no real evidence yet that suggests it has an adverse effect on MS or any autoimmune disease. There is also no real proof yet that a reduction in salt intake with immune-modulatory therapies will prove beneficial in interfering with MS disease activity. It is still necessary to have studies and test ran that will prove or disprove these hypotheses. It may be possible to show that adjusting salt intake could help MS disease sufferers or with any other autoimmune disease, but the benefits still need to be proven.

There is a viable technology emerging for total artificial hearts, it is called rotary blood pumps. The progress of physiological control algorithms has heeded with new assessment environments. This article shows a type of hybrid of mock circulation loop (HMCL) that was purposely made for the assessment of rotary total artificial hearts (rTAH). This is worked when the vascular elements are entrenched from the physical domain into the numerical domain; this merges the strengths of both of the methods, easy and fast change of better able to control the pump at the vascular model. Limitations, like, compliance, resistance, and blood volume, may be varied vigorously in silico while under operation. There is a hydraulic-numeric interface that will create a feedback loop that is in real time

between numerical and physical domains. The hybrid of mock circulation loop uses a resistance valves that is controlled by the computer as actuators. This decreases the number and size of the hydraulic elements. Some results that were only experimental show that there is an interaction that is stable and has a high range of flexibility and widely operational range. And this, shows the recently made design environment has a large part in the control development, hydraulic design, and durability testing of rotary total artificial hearts. Rotary blood pumps (RBPs) are now among the most common implants used for cardiac assistance, because of their helpful benefits of displacement blood pumps. When implanting a device for a longer time than 9 months, these considerably less susceptible to the device malfunctioning. Thus, a patient who has rotary left ventricular assist device, who have left heart complications, may have twice the rate of survival at the end of the two years. Although, when it is a total artificial heart that has been implanted the most approved devices clinically are the positive displacement blood pumps. To show the rewards of the rotary blood pumps for patients with severe heart failure, there has been great effort being made to cultivate rotary (rTAHS). Adaptation and balancing of the flow of right-left continue to be a challenge that needs additional optimization of the physiologic controller development and hydraulic design, as well as evaluation. This means that the work on this additionally requires a new tactic, because of the limitations on the flexibility and

applicability on the in vitro evaluation atmospheres currently. Guyton et al printed a modulation model of the circulatory system; the understanding of the cardiovascular system has intensely increased. Currently, a profound and broad knowledge of the workings of the CVS are available, also lots of physiological models have been made. Mock circulation loops and numerical simulations use these models. In the simulated circulation loops, the models are made with valves, pipes, and compliance chambers. The increase in the demand for the vasculature complexity, like cerebral and bronchial circulation, in the detail become harder to competently get the requirements. The numerical stimulations have a benefit that the cardiovascular system models found in writings can be used, although the numerical representation of the pump is needed. The modeling will need lots of time particular when there are numerous prototypes being used.

By concentrating on rTAH development, an innovative approach could be useful to design this HMCL. The lapse of ventricular activity permissible by the abandonment of further pumping elements, such as pressurized reservoirs or volumetric pumps, and permitted the usage of opposition valves in the numeric–hydraulic interface. Therefore, in association with other LVAD-HMCLs, a smaller and simpler HMCL could be made. Numerous tests were done to assess its performance.

Even with completely opened valves each reservoir-to-RBP joining creates a flow dependent resistance, in so doing reducing the related PD range. Because of the forward pressure formed by the upper reservoir, the slight applicable alteration is undesirable in the full flow range for the left side. On the right side, this presentation cannot be achieved at this time. This is because of the smaller tubing diameter and flow. Once the tubing and right flow sensor is replaced with a larger bore diameter (3/4″), enactment for the left side is anticipated. The ability to make negative PDs may become necessary when pumps are raised for pulsatile operation. Negative PDs will happen during these phases as the pump aggressively slows blood flow. The comprehension of a hybrid simulated circulation loop for the rotary total artificial heart advance is shown. The practices of pinch valves that are pneumatically activated allow decrease of fundamentals in the physical domain. When only the blood pump is left in the physical domain the vascular elements are entrenched in the numerical domain. Thus a slight and very malleable evaluation and design environment was generated. The vascular system can simply be extended, or replaced, parameterized, in a small amount of time with marginal fees. The operational range may be taken full advantage of, because of the frontward pressure generated by the reservoir configuration. The HMCL notion permits pump classification with head forces from the shutoff, at zero or below, as high as a flow of 20. It can be established that the system can work consistently

with multiple rotary blood pumps. The physical depiction of a computer-generated signal is the greatest dire element. The present awareness shows the dynamic reaction may be limited due to the response of time that the regulator pinch valve subsystem. Once faster subsystems are found, this concept can be reevaluated for use in pulsatile applications. This HMCL avoids the use of sealed compliance chambers, which are hard to vary, hence making the system perfectly suitable for durability and automated testing. The notion is multipurpose; likely future uses may contain: hydraulic design needing only one pinch valve to be used, and maybe hemolysis. A study of tubing that is blood-contacting is led trough pinch valves that links to a blood bag. In their lab, the HMCL come to be an essential part in the enhancement physiological regulation of the BiVACOR TAH, of hydraulic design, also some twofold LVAD TAHs.

In a comparison against European rankings in 2011, the US ranked third among 13 European nations in terms of organ donation from the deceased, with 26.3 deceased donors per million population. Only the Spanish, at 34.1, and the Portuguese, at 26.7, donate more.

The 2012 National Survey of Organ Donation Attitudes and Behavior reflected "high and sustained support for the donation of organs for transplant" among US adults, with 94.9% in favor of donation.

People aged 35-54 years were most likely to have discussed intentions to donate with family members, 82% of them having done so. Only 38% of people aged 66 years and above had shared their wishes, and 67% of those under 35.

The strongest supporters of organ donation tend to be women, those under 65 years and people with higher levels of education.

Nevertheless, every 10 minutes, someone joins the waiting list. Every day, 79 people receive a transplant, but at least 20 people die waiting, because of the shortage of donated organs.

The United Network for Organ Sharing (UNOS) displays an updated record of the number of people in need of organs. On March 2, 2016, that figure stood at 121,524, and it rises every day.

A number of factors may hinder cadaveric donation. Personal or religious beliefs deter some people from registering or donating. In some cases, consent cannot be obtained in time, either because the deceased did not share their wishes with the family beforehand, or because they never got around to signing up.

Living Donors

For a living donor, health can be a consideration. A living donor needs better-than-average health to start with, and they may run a higher risk of disease in the long term.

A recent study from Johns Hopkins suggests there is a slightly higher risk of developing end-stage renal disease (ESRD) after donation. The figures were gathered in the context of developing a new tool to ensure that only donors with minimal risk are accepted.

Organ and tissue donation is more important than many of us realize—for society and for the individuals it directly affects. Today, there are nearly 118,000 individuals waiting for an organ transplant to live healthier, more productive lives (Unpublished data, Organ Procurement and Transplantation Network [OPTN], April 2013). For some people with end-stage organ failure, it is truly a matter of life and death. Add to these the thousands more whose lives will be improved through tissue and cornea donation and transplants that can help them move better, see better, and live better.

Donation affects more than the donors and recipients. It also affects the families, friends, colleagues, and acquaintances who love and support those in need of transplantation, and who benefit from their renewed life and improved health after transplant. For my part, I have experienced not once, but twice how donation and transplantation affects individuals.

One way to expand the number of organs available for transplantation is to expand the number of donors, through carefully and safely considering individuals who in

the past were not included. The guideline in this special issue of *Public Health Reports* provides a scientific, evidence-based process to assure a balance between organ safety and availability for each individual on the transplant wait list. As our knowledge and scientific capabilities regarding safety and availability grow and evolve, donors who in the past would not have been considered as donors are now able to provide the gift of life to others.

This guideline will help improve organ transplant outcomes, leading to more individuals being able to live healthier and longer lives. The science and evidence are clear and will improve the safety of organs, balanced with a clear and conscious regard for donors and recipients. It is the human aspect of donation and transplantation—helping people. It is the right thing to do.

Many organs can be donated, including heart, intestines, kidneys, liver, lungs, and pancreas. Tissues that can be donated include corneas, heart valves, and skin. Donations may be used in people who have organ failure, who are blind, or who have severe burns or serious diseases. If you wish, you may specify which organs and tissues you would like to donate. While you are alive, you may donate a kidney or part of your liver to a specific matched patient. Documenting that you are a donor will not affect your treatment in an emergency; the first emphasis is always to attempt to save your life. Recipients of organs are chosen by severity of illness, time spent on a waiting list, and medical factors, not by economic or

celebrity status. There are no age limits for donors. There is never a charge to your family if you are an organ donor. Most religions support organ donation. Your body will not be disfigured (for funeral services). Follow the steps above to be sure your wishes are followed. If you are not currently registered to be an organ tissue donor, consider giving the gift of life to someone who needs it.

The shortage of organs for transplant has a large, negative impact on so very many of our people worldwide. In the USA at least 6000 individuals die each year while they are on a waiting list for their organs—this is about twice the number of people who died in the 9/11 horrible attacks in 2001. In the United Kingdom, for example, the amount of deaths because of organ shortages are approximately 1000 per year. The more serious problem is that the number of people dying before they are get placed on a waiting list is even larger than the amount of people dying while they are on the list. Accordingly, in the USA more than 10000 possible candidates for transplants die each year before they ever get placed on a waiting list. We need to add this to the following facts:" Most of the waiting lists are very long; studies show that the number of people on the waiting list for an organ transplant in the USA is approximately 112000s. The time spent on the waiting list (or before one is assigned) is often terrifying and full of worry both for the potential donee and his or her friends and family, and the time people are on the waiting list is increasing. There is strong evidence that the gap between supply and demand will increase,

because more people are living longer and getting diabetes, and are thus becoming prone to organ failure." (Peterson). This is a tragedy that is unavoidable. We need to find a way to prevent it. This shortage of organs is worse in countries like the USA, Denmark and the United Kingdom, where donors are required to opt in with the form for 'informed consent'. In these countries people are able to sign up and state their wish to or not to donate their organs. On the average about 15% of individuals have stated if they will or will not donate their organs, and only half of the individuals stated that they would be willing to donate their organs. In other developed world—for example, in Austria, Belgium, France, Hungary, Poland and Portugal— there is an opt out section that they can use for 'presumed consent', with this opt out form people are treated as though they are donors and still have the ability to say no and not donate. With this the number of 'registered' donors being larger at about 98—99.8%.9 The main conclusion is that the contradicting percentages are reflecting different 'rates'—regarding registered donors—with the opt in and opt out systems. Not many would argue that arrangements that involve the consent need to show a justification in a way that the others who have an informed consent, do not. Possibly no one who is in their right mind could deny that the capture rates are quite important. The question therefore is whether to address the possibility of devising an opt-in situation that could be better situated than the one they are operating now in the UK, Denmark and the USA to raise the

supply of human organs. They have tried one idea already. In the year 2010, people in Israel used a type of opt in system, where for those who show up and show that you are willing to donate your organs, you can receive priority if it turns out you need an organ. Akin to the Israeli government, we believe that this system will help have organs more readily available, if only because of more people becoming organ donors Although this is in the beginner stages, we are not able to get all of the data to verify this hypothesis. We may imagine a greater return —demand as well as a side as a supply side—the system that states you wish to donate your organs, or to receive another's organs, so should you so need, may be on the same form. This type of system is more needed because, most people would feel somewhat less at ease saying that they would like someone else's organs, rather than saying they will donate their organs should someone else need them, and if they do so even though they feel less comfortable, under Israeli laws they will be given a lesser priority.

The Dead Donor Rule

The dead donor rule premises the ethics of organ transplantation. This rule states that vital organs are only to be taken from dead persons. There is no clear evidence as to why some living patients such as those who are near death and on life support, are not allowed to donate their organs, especially if those organs would help another and adhere to their own wishes. This is not only a theoretical

question, there has been a recent case where the parents of a young girl wanted to donate her organs after she had an accident that left her with brain damage. They had plans to withdraw the life support and to take her organs shortly after death, however the attempt to donate was stopped because the girl did not pass away fast enough to allow them to have her organs be viable. The little girl's parents felt this failure as an additional loss, they wandered why their daughter could not have had the organs removed before life support was turned off.

There was a different case at the University of Pittsburg Medical Center, where the man with a brain injury who had family request that he have life support stopped. This man had strong views on organ donation and was an advocate, he unfortunately was not up for any of the traditional manners of approach to organ donation. Because of this the family asked for permission for him to donate his organs before death. The hospital made plans to only take out those organs considered to be non-vital, I.e. a lobe of the liver and kidney, while he remained under anesthesia. They planned to cut off life support after these surgeries. This decision was given the okay by the ethics team, clinical team and the administration of the hospital, but because multiple surgeons that were contacted would not take the organs, the plan was not honored. The united network for organ sharing says that a patient has to give direct consent for a living donation, and because of the patient's brain injury he was incapable of doing so. Due to this the

patient died without the ability to donate his organs. If it were not for them having to comply with the dead donor rule, this family would have been able to donate the patient's organs.

The dead donor rule limits the ability to gain transplantable organs, it denies patients the chance to donate organs when death is a positive and donating their organs was their desire. Another problem with the dead donor rule is that society and physicians have to develop a criterion to declare patients dead while their organs stay alive. The first step they took was to declare someone brain dead. This means that patients who were considered brain dead were done so on the belief that they lost "the integrated functioning of the organism as a whole" (Truog). The problem with this however, is that over time it is cleared that patients who are diagnosed as brain dead have not completely lost this balance of homeostasis and that they can in face continue this homeostatic functioning up to 3 years Brain death does not compute with the scientific comprehension of death, the acceptance of it does offer some factors to help us justify the recovery of organs of brain dead persons. An example of this is that individuals who are brain dead are unconscious permanently and are unable to live without the ventilator. Due to this the recovery of organs is acceptable as long as the donations was desired by said patient or the person acting on the behalf of the patient. Recently due to the growing need of organs, specialists are turning to those individuals who they declare dead because

of a loss of their circulatory function that is irreversible. This still arises the difficulty of saying a person is dead but the organs are trans portably viable. This has led to a requirement of allowing organs to be taken once a patient has not had a pulse for two minutes, although with many patients the circulatory function is not loss during the 2-minute time frame, owning to the possibility that cardiopulmonary resuscitation could bring the function back. A compromise had to be reached where the taking of an organ can begin before the absolute knowledge of the loss of function of the circulatory could be reversible, and that physicians wait long enough to believe he heart will not restart itself, and the person speaking on behalf of the patient agrees that resuscitating the patient will not happen, knowing that this could have the patient brought back to life after being declared dead.

A reasonable person could believe these compromises are medical charades, that is why it is suggested that a better foundation for the ethics on donating organs be found in the ethical principles of non-maleficence and autonomy. The autonomy respect allows individuals the choice in the circumstances surrounding their death. The non-maleficence protects the patient from any harm. Due to these patients should be allowed to donate their vital organs except in those situations where doing so would harm them, and that they would not be harmed if the life support was stopped. That patients have to be dead before their organs are taken is for an

ethical requirement, but by not allowing the patients or families request to donate the dead donor rule takes away the donor autonomy and limits the amount and quality of organs that can be transplanted. Most insist that the dead donor rule be used to keep the trust of the public on the transportation of organs enterprise. Although the evidence shows that a portion of the public worries less on the timing of death in the organ donation process and more on the assurances that a patient will not recover and the decision making.

Changing the foundational ethics of organ donation from the dead donor rule to non-maleficence and autonomy can require creating exceptions to the laws on homicide. It will not be a first to have struggled with the laws to that of the desires of a person so that they can die in the manner in which they so choose. In the 1970's individuals gained the right to discontinue ventilators and other life support forms, despite of the arguments of physicians saying that doing so will be like killing unlawfully. Since the 70's the physicians play an active role deciding when and if to take someone off life support. Due to this active role physicians have taken in the dying process has possibly enhanced instead of taken away from the trust of the public in this profession.

Our society on a whole supports the belief that people are granted the range of freedoms and have the assurance that it is the same for all. Some may have a more personal or moral belief that do not go hand in hand with what has been said so far,

and their beliefs are to be respected as well. Nevertheless, the beliefs of individuals who do not wish to use the options provided, should not have any bearing on those who wish to utilize them. When someone is near death they may choose to die in a manner that will help others, even if that means changing how or when they die themselves.

Paid donations

The concept of paid donation is a subject that is greatly talked about in the transplant community. Some of the reason for this is that in certain countries such as the UK, the thought of an organ donation is considered to be high in value. Showing the difference between a commodity and a gift is understood clearly and equally applies to both the deceased and the living in organ donation. The legislation in the UK does not allow for dealings with human material and transplantation commercially. There is not legal protection such as this in other countries. The world health organization tried to get members to take certain measure to protect the vulnerable and poor from the sale of organs and tissue and tourism of transplants. Tourism of transplants and paid donation are intertwined. "Paid donation and transplant tourism are inseparably intertwined. Further debate at a summit in 2008 by the Transplantation Society and the International Society of Nephrology led to the Declaration of Istanbul on Organ Trafficking and Transplant Tourism stating: ‘Organ trafficking and transplant tourism violate the principles of

equity, justice and respect for human dignity and should be prohibited. Transplant commercialism targets impoverished and otherwise vulnerable donors leading to inequity and injustice'." (Adair, Wigmore).

To have an understanding of paid donation you need to understand what drives it. There is a shortage of available organs around the globe. The gap between the supply and the demand is prompting many people in the west who have organ failure to go overseas for their transplants, most in developing countries. Many times, these persons don't ask may questions about how the organ came about, this process is further fed by brokers and health professionals that seek financial gain and do not care to take advantage of a human being who is desperate and dying and the person who is desperate for the money. It is a very sad part of human nature, that if there is a market for something, people will find a way to profit from it, even if the results exploit other humans. This problem usually coexists with a non-efficient healthcare to provide the organs viable to the program in certain countries. It could be due to both the inability to provide a dead donor program, due to the social, cultural and religious blocks or because of the limitations of economics. In these types of healthcare situations, they tend to turn to living donors provided by non-regulated private clinics. In the west there is the Hippocratic oath saying to first do no harm, and it is used to protect to donor and

the donors interest. The paid donation system does not work this way. The way that the responsibility is shifted to the paying party is unethical and disturbing.

We can look at the demographics of a donor to fully understand this. Donors are usually living under the line of poverty and are poor. They do low paid jobs, usually illiterate, and their reasoning for donating us usually not to help another but to get out of debt. In countries such as Pakistan some individuals will donate a kidney to get themselves out of slavery, most do not have any capital to give themselves a new life and usually return bacat k to debt. We who live in the United States find it difficult to understand what being entrapped in slavery represents, but if we were ruled this way how would we then look at individuals who donate an organ to pay a debt like college fees, credit cards or for a drug problem. It is sad that for most, selling their organ does not release them for debt or have the benefits they dreamed about, it typically results in a decline in the donor's health. Most go back into debt, and are unable to work due to their failing health after donating an organ. Those who support paid donation, will argue that individuals should have the right to choose what happens to their organs. With paid donations informed consent is almost useless as the risks of surgery not being explained properly or understood. There are also some who are pressured by their families to donate, where all the talk about organ donation is predetermined. In the UK the society believes that there is a responsibility to protect all persons from any harm, even if

that harm could be self-inflicted. That is why there are helmet and laws on seatbelts. Maybe the problem does not lie with paid donation but with the regulation and organization. There are some who believe it could be possible to have an ethical market for live organs that would have safeguards and regulations that will help stop exploitations of sellers and have equity and justice for the recipient. Harris et al says monopsony, this has only one buyer for products from many sellers. The one who buys the organs are responsible for distributing them ethically and equally for all that were purchased. They also have to tissue type and screen for any infections. The UK suggest that the NHS could be the best buyer. China has attempted to implement a type of government control on the selling of organs. With this the permission is given to some hospitals by certain health authorities. And it allows them to offer transplants to foreign individuals, and has a punishment in place for facilities who offer the same illegally. These propositions are to try and stop illegal and underground organ trafficking on the black market. No matter how we state it or put it, the selling and buying of human organs can never be considered ethical as the weakest one will always lose. The financial aspect of organ selling is very exploitative, where the poorer of the society are the ones who try to sell their organs more than the wealthy. You could argue still that this system cannot be regulated to prevent exploiting the poorest or to stop the motivating financial drive of the healthcare professionals, as this undermines the

care the recipient receives. This has the financial garnering being more important than patient care.

For and against organ donation

In the USA alone over 120.000 individuals are waiting for an organ to be donated to them, and there are about 21 patients who die per day. Germany has about 1000 individuals who die in a year waiting on a transplant. And other underdeveloped countries have like numbers even though these countries have great campaigns and other incentives to raise the number of available organs. Despite the number of available organs rising ever more people are in need transplants. This is due to an increase in diseases such as obesity and diabetes. The progress of today's medicine is enabling many transplantations and therefore we have an increasing gap between the organs needed and the organs that are donated.

Despite the need for donated organs, there is a resistance that remains within the general public and some healthcare professionals. We should not see this as a surprise, this is a value field that is ethically complex. The medical and surgical field require the greatest scientific standards, but personal beliefs, values and ethics also play a large role. There has been lots of research in organ donation and transplantation in medical studies, with healthcare professionals and the general public, usually with the aim to investigate whether there is sufficient knowledge

needed to raise donation rates or to set strategies to enhance rates of donations. Studying the attitudes of healthcare professionals has a relevance, there are publications that address the ethical and psychological aspects that show that even though the need for organ donation as grown, the more important thing that hinders organ donation and transplantation is that despite the wishes of those who have passed the attitude to the intensive care personnel affect organ donation. There is existing research where it has become clear that facilitator and barriers in organ donation and transplantation medication are intricate and multiple relating to ethics, knowledge, individual beliefs stressors and religion. Therefore, the reason for this study is investigate what the healthcare professionals experience when dealing with organ donation and transplantation, and to what extent they intertwine. It is intended to combine the cause to factors of the facilitators and barriers to define the differences in fender, profession, self-categorization, spiritual and self-knowledge of organ donation and transplantation to see their interaction.

There is a survey developed that closely collaborates with the staff of a branch in Germany for organ donation and transplantation to show personal beliefs and values on attitudes toward organ donation and transplantation. After a review there was a conducted study of professionals in a focus group of 15 individuals who are experts in the field of organ donation and transplantation, identifying barriers and facilitators. The discussion of the group was recorded and then

transcribed word for word and analyzed to show the main subthemes and categories that need to be addressed in the survey. The development and review process has led to identifying five themes that are relevant to the experience of organ donation and transplantation. They are ethics of organ donation and transplantation, knowledge of organ donation and transplantation, stressors, belief obstacles, and ethical reasons for favoring the organ donation when talking with relatives.

These themes became the primary source of items that were used in the survey. The questions that were asked and discussed in the first rounds with experts and then they were tested on the medical professionals and students. The better version was the tested with other healthcare professionals with protocols for thinking out loud. These interviews only lasted from a half hour to an hour and they helped to define other misunderstandings and to take out any unclear notions in the final copy. The final edition was completed after nine interviews were conducted and the last version was done in the 2014 summer. The items on the survey were graded using a four-point scale from strongly agree, or strongly disagree, saying that something applies or does not, meaning the higher the score was the more they disagreed.

The next phase of this process, they tested the structure of the topics and the reliability of factors in a larger set with 175 healthcare professionals. When these

factors were made known they tested the different theoretic structures and eliminated some on the items which were shown to be weak on the factor scale, the factors that proved strong on two factors, or those that are weak on the scale to item correlation. The intention was not to make an instrument but to test the differences in attitudes of healthcare professionals. None of the scales were made specific so some of the factors that were identified are not as balanced with respects to the item numbers. Other than the validity of this study that had no measures in which to analyze the validity.

The data collected was entered when scanning the completed surveys into scanning machines, and the analyses of correlations and variance was computed. Due to the study being exploratory the significance of this was given a 0.5. There were 293 questionnaires given out to about ten awards in the university hospital of munich to nurses and physicians that work in different ways and different degrees in the departments of surgical and medical dealings with organ donation and transplantation. This survey got introduced to the members of teams in all the participating wards by the members in the research team. The rate of response was sixty-four percent. The healthcare professionals who responded were twenty-seven percent physicians and seventy-three percent nurses. Seventy-one percent were females. There were eleven of the questionnaires that got discarded, owing to respondents choosing to not fill in the demographic data. There were twenty-one

percent Protestants, forty-five percent Catholics, thirty percent had no affiliation and four percent had other. In regards to religious aspects and spiritual, twenty-eight percent regarded themselves as spiritual and religious, fifty-three percent said they were neither, twelve percent were only religious and seven percent were spiritual only.

In this sample forty-one percent believe there is life after death, twenty-five percent say they are undecided and thirty-four say they do not believe in a life after death. In this more women than men believed there was life after death though there were no noticeable differences in professions. However, there was a large percent of Catholics who believed in the life after death as opposed to Protestants in this survey. In this sample there were ninety-two who say they are properly informed on the legal aspects of organ donation and transplantation, and ninety-six on signs of brain death. The ones who say they are not satisfactorily informed on the legal aspects were found mainly in the group of nurses. Sixty-seven percent of these individuals agree with the aspects of regularity on organ donation and transplantation.

When these individuals were asked about their consenting to donating their organs after death, most of the healthcare professionals agreed that they would donate their organs and tissue. This survey showed no immediate differences for profession, gender or spiritual awareness for this answer. They intended to next

combine topics of specific natures addressed with items of specific factors that tested their internal reliabilities before addressing the differences between the healthcare professionals with no respect to this topic. To address ethical blocks healthcare providers believed they would have the items were shortened to specific factors. The reliability of these items is weak. An analysis of exploratory factors pointed out subconstructs, one that has four items and one that only has two. The first scale could be used for more analyses but the seconds quality is weaker. The first factor showed the scores found there was justice in the distributing of organs, and there was a high standard for handling the convictions of coworkers. In their developmental phase they found that values and beliefs that favor organ donation and transplantation more clearly formulated arguments for the donations when the healthcare professionals spoke with respect to those who were the deciding factor as to whether or not they would release a body of a brain-dead family member for organ donation. This is why healthcare professionals asked whether it was acceptable or not to give arguments to said relatives showing a favoritism of organ donations and what type of argument could be viable in such a situation. These arguments were tested to see if they were reliable the first one showed arguments that were ethical and the relatives themselves could see, the second showed advantages some could have on giving an organ of a relative. They then asked for stress blocks of healthcare professionals. The analysis showed two constructs, one

had four items that had satisfactory reliability and the other had two items and poor reliability. The first scale could be used for more analyses. The stronger disagreement was due to the care of relatives, it was a pure stress barrier and the accepting that being brain dead was a death of a human was less stressful. They asked individuals which could constitute a block for organ donation and transplantation from a personal outlook or the assumed prospective of family members. There were four questions that pertained to life on earth and for that pertained to life after death. These eight questions that addressed the personal beliefs of organ donation and transplantation had a good debate. The item that said one wanted to be buried whole loaded on both factors. Then was eliminated from the questions. The first factor addressed blocks that regarded protecting the soul. The second factor regarded blocks for the affection one has for the physical person. A way to score the scales are alike, the high scores that show disagreement, found that the body should stay whole and resurrect that way. This same thing was found when healthcare professionals considered the organ donation and transplantation blocks of the families. The wish for the body to be buried as a whole, crossed multiple barriers and it too was eliminated from the pool. These factors helped them to analyze whether the blocks and facilitators were associated. The factors that addressed the organ donation and transplantation arguments that were communicated to the relatives showed they were not or slightly associated with the

organ donation and transplantation blocks. This showed that these aspects were to seen as independent situations. The stress blocks not the ethical problems showed they had any bearing on the association with any other factors. We can generally show arguments given to relatives in regards to organ donation and transplantation having altruistic effects garner more agreements than stating personal beliefs. However, there showed to be no differences with gender and nursed had a higher score of disagreement for the personal beliefs. These effects were pretty small. The spiritual and religious aspect had a greater effect with the personal beliefs, and it scored higher in disagreements. These high scores on their own show the barrier scales that indicate healthcare professional's disagreement with no difference to profession, gender, religion or spiritual awareness. Mostly the assumed notion for organ donation and transplantation blocks for the families scored lower than the blocks with similar levels of disagreement for one's perception of organ donation and transplantation. This suggests that healthcare professionals disagree with the protecting of a soul as an organ donation block when being compared to the affection for the body as a physical whole.

As for medical reasons for a stress block, they are of a lesser relevance in this situation, mostly for women and nurses, they have the higher scores in which show a disagreement. The sizes of the effect are small, healthcare professionals spiritual and religious attitudes had no bearing or influence. There was no major difference

in the ethical barrier perception of organ donation and transplantation for religious or spiritual beliefs, profession or gender. When they categorized the healthcare professionals as to their willingness to become an organ donor, they saw many differences. The individuals who did not wish for their organs to be donated showed more disagreements to communicate the altruistic effect or personal beliefs than those who agree to donate their organs. The size of this effect is small, with regards to belief blocks, there was no true differences. The few who said they had not been informed adequately on the aspects of organ donation and transplantation had a stronger disagreement for the personal beliefs that could be talked to with families. The effect of this is small and regarding belief blocks there few differences. The majority of healthcare professionals were for organ donation and transplantation. Most had consented to be an organ donor, they agreed that there was a significant lack of vital organs and that this is an ethical problem. Owing to this they found it was more acceptable to give arguments to relatives that favored organ donation and transplantation. These answers confirm the research that indicates that healthcare professionals that work in organ donation and transplantation are more motivated. Although, healthcare professionals in this study also showed intertwined blocks and facilitators in organ donation and transplantation, thus confirming the organ donation and transplantation is a difficult ethical and medical field to navigate. They saw the tendency for

healthcare professionals to disagree with the locks that they considered a factor for barring organ donation and transplantation. When they communicate with the families the majority of healthcare professionals said it was acceptable to give altruistic reasons that were previously associated with organ and transplantation advocacies. The healthcare professionals in this study showed a higher degree of being informed of the legislative parts of organ donation and transplantation and the signs of a brain death. This does not entail all healthcare providers agree with this aspect of organ donation and transplantation. Really only sixty-seven percent of healthcare providers in this study agreed. This suggests that there is potentially a conflict that encircles existing practices. The ones who didn't feel that they were informed adequately about the regulatory situations of organ donation and transplantation tended to be less willing to give arguments that were in favor of organ donation and transplantation, and this suggests that there is a low commitment to organ donation and transplantation advocacies. Their findings then confirm that research that was formerly done indicates low knowledge of organ donation and transplantation as one of the main potential blocks to organ donation and transplantation with the public, as well as with healthcare professionals. It was found that importance of a healthcare professionals approach to families, the range of block with nurses and physicians relate to knowledge of organ donation and transplantation was described as organ donations and transplantations are

experimental procedures. Any knowledge about the potential donor's criteria, requests that procedures and policies, and an understanding and explaining of brain death be given to the families. As previously mentions most healthcare professionals on this survey agreed to organ donating of their own, this is something that was previously found to correlate with a commitment to the advocacy of organ donation and transplantation. This is also confirmed by the study of those for who are for donating organs to be more favorable to giving both of the before mentioned typed of incentives to the families than those individuals who have no wish to donate their organs. In this study healthcare professionals saw more barriers that were ethical to organ donation and transplantation that was for the justice in distributing organs. Confirming that the research that exists in the field suggests healthcare professionals consider ethical, legal and value questions in regards to organ donation and transplantation to have significate meaning to healthcare professionals that work with organ donation and transplantation. Regarding the ethically facilitating in organ donation and transplantation, most healthcare professionals in this study agreed that it is acceptable to give ethical arguments when talking with the families of potential donors, whereas mentioned before was usually met with a high advocacy to organ donation and transplantation. There were a couple ethics constructs found that healthcare professionals considered to be important when talking to the families. Personal

beliefs that regard the arguments of relatives can relate to themselves and altruistic ones entail an advantage others could gain from the decision of family members, if they agree with donating the organs of their loved ones. Healthcare professionals favored the altruistic over the personal. The ethical arguments for organ donation and transplantations such as it being a responsibility or act of fellow humans, this study found it has been proposed in incentives that are legal and monetary incentives. Another study found that the majority of healthcare providers preferred the altruistic policy of donating organs that came from a moral ground rather than other types of incentives to families. However, they agreed that this policy is not particularly effective.

The healthcare professionals in this study identified with different stress blockers to organ donation and transplantation in their daily work. Healthcare professionals considered the care of relatives a smaller stressor than the acceptance of being brain dead meaning the death of a human being. The larger variance was found with women and mainly nurses, they disagreed that medical reasons constituted stress blockers. One could assume that get more involved with the care of the donors and the families than making clinical decisions about organ donation and transplantation. Also, that they don't see medical reasons as a strong enough argument against organ donation and transplantation. This is not surprising as the basis of an international research study. Barriers and facilitators are important and

found in the stress and coping manors in handling organ donations and transplantations. Resources and stress have not only been realized by the families of donors or those waiting for an organ, but also for the healthcare professionals who work in the organ donation and transplantations. There are multiple stressors that nurses identify, such as not having consistency with physicians with organ donations, the threat that their patient is going to die. The do say that they believe their work to be meaningful, and that they have coping mechanisms to help handle the stress to gain control of emotions, to take a timeout and to help distance themselves. In this study there were two barriers found the one for the protecting of the soul, this relates to the religious and spiritual beliefs that go against the organ donation and transplantation advocacy, and the affection for the physical self. The healthcare professionals in general tend to see these belief stressors less for themselves as they do for families, mostly those beliefs that organ donations violate the body, as a barrier for families. As previously stated healthcare professionals felt discomfort giving personal facilitating arguments, interestingly though spiritual and religious healthcare professionals were less likely to correlate between religious and spiritual organ donation and transplantation advocacies. There is no major difference between spiritual and religious in regards to the altruistic aspects as arguments as a personal spiritual and religious had no major effect on their own stress, ethical or belief barriers. There is a large amount of

research on how spirituality and religion entail facilitators and barriers. There seems to be more tendency in modern times for spiritual or religious arguments that favor organ donation and transplantation than the opposite. In the other study with Jasper it showed that religion was more often given as a reason to donate organs and to help sick individuals through this organ donation than as for a reason not to donate organs. The same was shown for more religious leaders to recommend the giving of organs to be an act of charity. In this same manner it is proposed that increasing organ donation and transplantation awareness in the public is a good thing. More often than not religious beliefs have an impact on the practices of many fields of medicine such as, psychiatry, end of life care, gynecology and general practices. This research shows that these beliefs may have a large impact on how medicine is practiced, including the organ donation and transportation. In this study there seems to be hints that show spiritual and religious attitudes are specifically and partly associated with the advocacy of organ donation and transplantation.

There is international research the shows a strong relationship to different barriers and facilitators in organ donation and transplantation. A study pointed to the multiple barriers and facilitators in they say that factors like culture and religion are usually tied in with more complicated reasons such as distrusting the medical system, ignorance about the process of donating and misunderstandings regarding

the stances of religion. This study gives some evidence to these insights. Such intricacy and multiplicity are important to other studies and are shown in professional setting, even in a structural perspective as organ donation and transplantation, which is complicated and multi-professional interaction. It usually depends on cooperation of numerous departments, organ institutions, hospitals and professions. Organ donation needs healthcare professionals to interact with potential donors, their families and patients. These interactions have many barriers against successfully donating organs. In the complex fields, no two cases are alike, and have no common causes. As with field theory, process and system, the causes are dependent on and act on each other. The same is said for social interaction and psychological behavior. That being said in a filed as complicated as organ donation and transplantation it is very important to observe and consider not only the effect of a single but may causes for the low number of organs to adequately strategies and raise the availability of organs for organ donation and transplantation. The population for this study is small and healthcare professionals are recruited in departments at the hospital with only a response rate of sixty-four percent. We don't assume this data represents organ donation and transplantation healthcare professionals in general can further add important notions to the discussion. For studies in the studies in the future inclusion or more regions in Germany, larger study sizes need to be included. This study shows a higher agreement with the

importance of organ donation and transplantation among organ donation and transplantation healthcare professionals. Having said that they identified barriers and facilitators in the fields that have an impact on each other, such as, ethical reasons for organ donation and transplantation, knowledge of organ donation and transplantation and the willingness to donate your own organs, beliefs of individuals regarding spirituality and religion, and stressors to help handle organ donation and transplantation in a hospital. We found that organ donation and transplantation constitutes ethically and medically intricate field of medicine intervention that optimizes the knowledge healthcare providers of organ donation. The relevance of their own beliefs and barriers through their education and learning. The continued learning of knowledge specific to rain death has lessened the practical and ethical barriers that being brain dead constitutes organ donation. There are trials on the increasing knowledge of needs and facts of organ donation and transplantation in healthcare professionals and the general public through healthcare professionals and public campaigns. Continued learning raises the attitudes of organ donation including becoming an organ donor.

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  - doi: 10.1177/003335491312800402 PMCID: PMC3675206The Power of Organ Donation to Save Lives Through Transplantation

Kenneth P. Moritsugu, MD, MPH, FACPM

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