

Organ Donation in the 21st Century a Call for Social Care

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ABSTRACT

This study analyses the current state of a serious and persistent social emergency, the shortage of organs, and discusses possible alternatives for a solution. It should be mentioned in this regard that society is currently experiencing a terrible epidemic with high rates of contamination and critical mortality, COVID 19. This serious situation has generated changes in the medical-social approaches and in the therapeutically resources of habitual solution. Of course organ and tissue transplantation has had to undergo this health crisis. The persistent presence of “organ shortage” before the pandemic showed unsatisfactory statistical results of organ transplants worldwide. Based on the results, the following key factors have been suggested as potentially responsible for this reality, and ideas and conclusions

on its possible solution are outlined:

- Society’s inhibitions on organ donation
- Partially effective social education policies
- Controversial legal specifications on organ donation
- Relative overall accordance with established ethical and economic standards regarding the costs of organ transplantation.

An analysis of these points generates a series of proposals for discussion.

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Introduction

Society is currently suffering from a terrible epidemic with high rates of contamination and critical mortality - COVID 19. Regardless of the current negative response to COVID 19, science has shown that it has always been able to find the necessary solutions to overcome the most crises. Accordingly, experience indicates that the current need for this new strategies for organ donation and transplantation may be modified. This pandemic has led to a drastic reduction in the number of transplants worldwide. In France and the United States, this trend has affected 90% of heart and liver transplants, which are life-saving surgeries. In any case, it should be noted that the shortage of organs should also be regarded as a prolonged silent pandemic, requiring as a “fundamental therapy”, essentially a human body primarily after life. It is crucial to recognize that this unusual “death/life” therapeutic paradox depends exclusively on a positive social attitude towards organ donation.

Unfortunately, over the years, social bias towards organ donation has been the main cause of the persistent unjust deaths of hundreds of patients on endless waiting lists. This critical situation might only be modified through in-depth reviews by government policy makers in the areas of health and education, with the objective of generating solutions of real efficiency for the well-being of people and to reverse this daily reality that threatens life.

Background

Sir Thomas More published Utopia, his conception of a just and egalitarian society in 1516; it is a description of a social alternative that even today could not be fully achieved. An exciting debate in the present revolves around the best medical care proposals that would ensure the well-being of society in accordance with the economic conditions of the countries. This type of discussion was absent from Thomas More’s masterpiece [1]. The 20th century is distinguished by scientific advances capable of generating a real change in the fight against life-threatening diseases, thus achieving the survival of patients that were previously practically incurable [2]. In this regard, it is valid to recognize that the integrity of the human body, both in life and in death, has been a significant determinant of our individual behaviour over the centuries, many times in some way obstructing scientific advances [3].

In this analysis of the medical innovations with great social benefits, the progress of preventive medicine must be particularly highlighted. Success with vaccines, control of deadly infections, and the prevention and control of metabolic and cardiovascular diseases have saved many thousands of lives [4]. The advances in the knowledge of cancer and fundamentally the progress in its prevention and treatment is of momentous value for the benefit of people’s health [5].

But undoubtedly the most impressive medical achievement of the 20th century is the possibility of offering life to patients that had been condemned to die from end-organ failure. This transcendent advance, organ transplantation, has been achieved through science, transforming death into life for patients waiting for an organ,

mainly from a deceased donor [6].

In this sense, and fundamentally through the knowledge that must be provided to society through education, it is necessary for people to understand the hegemonic role organ and tissue transplants play in solving a health, economic, and social crisis in three basic ways:

- Transplantation ends the need for haemodialysis machines to preserve life at a permanent cost to the individual patient's freedom and at an unsustainable economic cost to health budgets.
- Transplantation requires the "use" of our body, mainly after death, as the only resource for the return to life of hundreds of patients daily.
- The full participation of society, individually and as a collective, is essential for organ transplantation to be successful on a massive scale.

This analysis of the advancement of the "art of healing" could suggest that two types of medicine have the essential goal of saving lives in the 20th century. On the one hand, we have the medicine that we can call "classical". This medical care, to achieve its main objective, that of saving the life of the patient, uses all the vital resources at its disposal: doctors, health facilities, experimental research, the tremendous evolutions in the pharmaceutical industry, preventive medicine, state economic resources, and policies of social care. Organ and tissue transplants have developed prodigiously based on a paradoxical conception: The human body is necessary to save lives, essentially at the time of death. If society is not the crucial protagonist in this exceptional 21st-century medical technique of combatting death by using death itself, this formidable advance cannot be fully and completely utilized [7].

This marvellous medical realization, which essentially depends on a defined social behaviour towards donation, has generated a very serious reality – the sadly persistent organ shortage, responsible for thousands of deaths of the people on the never-ending and ever-growing waiting lists [8]. The modern era of transplantation is considered to have begun during World War II, when Peter Medawar and Thomas Gibson explored the use of skin homograft for the treatment of burns [9]. Even so, Schöne in 1912 and Emile Holman in 1921 categorized graft rejection as an immunological event [10]. James B. Murphy's worked on the lymphoid system in 1926, Leo Loeb, with similar findings in the 1930s, remained convinced for another decade that grafts failed due to humoral rather than cellular immunity [10,11].

Although advances in immunosuppressive therapy have reduced the incidence of acute rejection, chronic immune damage is the main cause of the long-term functional failure of grafts. Alternative advances in the therapeutics to control chronic rejection will be necessary to improve the use of post-transplant immunosuppression in the prevention of final graft failure. The essential current objective of scientific research is the achievement of tolerance of the transplanted organ with the suspension or maximum decrease of immunosuppressive therapy [12].

In experiments inspired by Owen's description of blood cell chimerism, Billingham, Brent, and Medawar demonstrated that allogeneic cells from the spleen and bone marrow induce tolerance when they are not rejected by the incompletely developed immune systems of new-born mice recipients, and that tolerance extends to skin allografts from donor strains [13]. In the future, immunosuppression will likely be more geared towards protecting the graft from rejection and reducing the risk of disease recurrence and complications related to immunosuppressive therapy. Such

approaches will include strategies designed to promote stable and long-term immune tolerance, which will reduce initial immunosuppression in organ transplants [14].

Following the innate and human principles of solidarity, an important part of society recognizes the vital need for organ and tissue donation. Unfortunately, on the other hand, the statistics show with inexorable persistence the constant and significant increase in the number of patients on waiting lists, with a growth in patient mortality. This evident practical demonstration of people's undefined attitude towards donation necessitates a structural renovation of the current strategies of social education at all levels [15].

This current crisis signals that a significant part of society has not yet understood their indispensable role in realizing this unique possibility for health that any of us may require at any time in life. Among the possible causes of this conscious rejection of their own safety is the reticence to talk about death, which is common in people's socio-psychological behaviour. Determining the essential reason for this attitude, which has possible consequences for one's life, is a great challenge for experts in socio-psychological phenomena with negative effects for the welfare of society in general [3].

The concept of death has been essentially structured by atavisms in our subconscious, basically by interpretive errors about religious concepts related to the life/death dualism [16]. This conceptual problem has not been fully evaluated by the media and social education. We should consider that it is an important factor in the decision to donate the organs of a loved one at the time of death. The analysis of this problem and its potential solution by experts in psychology and religion is necessary in any attempt to modify the current social behaviour towards the scarcity of organs [17].

As mentioned above, the participation of society is the basic factor for the success of the great medical-scientific advance that organ and tissue transplants currently represent. Medico-social education at all levels, from popular to university, has not been effective in its intention to achieve a society that fully adheres to the act of organ donation, basically after death. This reality, pointed out by various authors worldwide, is evident in the continuous increase of patients on waiting lists and the constant increase in patient mortality while they wait for an organ that never arrives [18-21].

A review of current educational programs in this regard has never been carried out. This should be a priority for the designers of educational programs, with the indispensable objective of modifying the current insufficient behaviour of society towards donation to guarantee the solution for thousands of patients on the growing waiting lists [22].

Transplantation problems and the COVID-19 pandemic

The pandemic generated by the COVID-19 virus, which has as yet no concrete therapeutic solution, and the concomitant prescription by the states of prevention measures, fundamentally based on social isolation, have created a difficult situation for health policies and the evolution of socioeconomics worldwide. Obviously, this crisis, accompanied by a high global mortality rate, has also generated negative implications for organ donation and transplantation [23,24]. The risk in the practice of organ donation and transplantation in relation to the COVID-19 pandemic is the greater susceptibility to postoperative complications, fundamentally the vulnerability to infection, with the inherent dangers in the evolution of a postoperative period when

immunosuppressant medication is essential. Likewise, current circumstances fundamentally force the reprogramming of organ transplants with living donors. Regarding the use of deceased donors, transplantation should be carried out only in urgent cases in which this is the single means of avoiding a fatality, with the maximum preoperative and postoperative preventive controls [25-28].

Expected potential evolution of organ transplantation related to the COVID-19 pandemic

Regarding the serious impact of the global pandemic on such a vital health resource, it is of interest to outline possible alternative solutions:

- Complete eradication of the pandemic, as has happened with different deadly virus over the years [29].
- The achievement of a persistent immunization by vaccines in order to protect against reinfection and prevent further transmission despite the continuous mutation of the virus.

The COVID-19 pandemic has created challenges for all the alternatives for the practice of organ transplantation due to the preventive measures medical teams are obliged to carry out as well as the evident negative psychological pressure of this pandemic in the social attitude towards organ donation. On a general scale, the pandemic has affected strategic decisions in hospitals as well as the social-political health decision-makers regarding transplantation. Nevertheless, nowadays, current scientific knowledge cannot make an accurate forecast regarding the long-term evolution of the current pandemic dominated by the different variants of COVID-19 [27-30].

This reality impacts a critical experience in the current potential resources of people's health – the inexorable persistence and growth of the dramatic daily consequences of the current organ shortage. However, as we optimistically suggested, in the history of epidemics, medical sciences evolve and finally defeat viruses. Despite this almost certain possibility, it is logical to assume that the current persistent, inappropriate social behaviour, sustained over the years by society, towards organ donation at all its levels will not change. This generates the necessity for a review of the current educational programs on organ donation, with the goal of attaining a clear and definitive understanding in all social levels of this persistent global public health crisis which is responsible for the unjust death of patients on organ waiting lists [7].

New Social Education

In the case of organ donation and transplantation, the theory of social representations links the new health policies with communication techniques. Social representations outline the ways in which all levels of society might reply positively to the surveys and obligations generated by states or non-governmental organizations for the well-being of all. Experience shows that social representations represent an instrument of transcendence for the success of proposals that benefit society in general [31].

Social representations have been clearly defined within social, cultural, and political psychology. The concept of social representations examines the ways knowledge and social practices develop through socially significant problems at different levels of society. It has been shown that social representations are communication systems and social influence that represent the main means of establishing and expanding shared knowledge and the affiliations that unite social members [32].

In the most common definition, Moscovici explains that social

representations are “a system of values, ideas and practices, which serve to establish a social order that allows individuals to orient themselves and dominate the material and social world in which they live and allow communication between the members of a community through a shared code for social exchange and to name and classify various aspects of the social world”. The fundamental objective of this theory is to ensure that society understands situations of mutual benefit for all. Paradoxically, due to their basic characteristics, people can strongly resist when, through inefficient education, they have not understood the value of their participation [33].

Social representations are created to conventionalize objects, people, and events by placing them in a family context. Once established, they serve to influence social behaviour and the negotiation of social identities, imposing themselves on social interactions and limiting socio-cognitive activities [34].

Social representations are of significant value in that they allow the evaluation of interpersonal information of new activities inherent to people and society as a whole. They make it easier for people to interpret concepts of unusual complexity; for example, the social benefit that organ donation and transplantation represents for society, facilitating discussions about its importance for the benefit of all, something that has not been clearly understood [35].

The use of organs from deceased patients for transplants has been frequently portrayed in the social media as something prohibited or unnatural. It is also not uncommon to find information that links donation and transplants with corruption, medical moral ethics, and even with episodes of organized crime. The reality is that the fantastic or criminal events purportedly related to organ transplants have never been proven at the level of justice. This does not contraindicate the possibility that trade, non-criminal, of organs, generated by medical teams of relative ethical-moral structure operating in countries without donation and transplantation laws, or with deficient controls related to this activity, had a highly negative effect on the beliefs of the public regarding organ donation. The media has also played a role by disseminating news about these potential illegal activities [36,37].

In addition, the relatively insufficient results of the classic motto “Organ donation is the gift of life” could indicate that an altruistic vision of organ donation at the social level is diminished by a negative view at the family level (the refusal to give parts of loved ones to strangers). This may have conditioned a recent official document from President Biden of the United States. In his appeal for organ donation, he included the symbolic word “share” in the motto “gift of life”. In this regard, it is interesting to mention that in various publications during 2020, with the intention of showing people that organ donation is a possibility for everyone, I proposed changing the “gift of life” to “sharing life” in the current classic slogan with worldwide validity [38-43].

Some authors have stated that the concerns about organ donation expressed by families include fears about a corrupt medical and organ allocation system as well as concerns about a black market for organs [44,45]. A review of the general literature shows how infrequently the real usefulness of current social education campaigns on organ donation and transplantation has been evaluated. A recent example is an excellent study that evaluates the many unsolved problems that require intense direct action to overcome the persistent social crisis generated by the shortage of organs. This study highlights the urgent need for a real consideration of the inaccuracies and inconveniences of the

social education programs currently in force [46].

This lack of opinion polls and public view surveys before and after educational campaigns is undoubtedly of practical importance in the evaluation of any theory or proposal for other types of educational programs on organ donation, allowing progression by those responsible for social education programs on the subject [47]. This type of study strongly suggests that analyses of the characteristics of current educational programs require thoughtful and practical evaluation. Experience in this regard over time has shown that the overall result of the social education programs on organ donation has not been great. In one survey, 23% of the people questioned said that their conversations with their family did not make them more likely to donate their organs [48].

Organ donation is still poorly understood by the public, in large part due to insufficient education programs. As such, the theory of social representations is well suited to helping researchers and practitioners understand the complex interaction of factors within a population that contributes to the persistent denial of organ donation at the time of a loved one's death [35]. The significance of the slogan "A gift of life" with respect to the social requirement of organ donation has been analysed with interest. Some studies considered that the altruistic vision of helping others through organ donation is particularly opposed to certain popular notions that invoke the possibilities of ethical-economic corruption in the search for organs for transplantation. Concerning these different alternatives, we have evaluated the significant potential value of the inclusion of the share concept in the slogan "A gift of life" [49].

Organ donation crisis

Since the beginning of transplantation, there has been a deficit in organ donation, particularly in the case of deceased donors, which has led to a practically unchanging health crisis, the organ shortage [8]. A significant number of patients on the transplant waiting list die or are removed from the list at a later date because they are unfit for transplantation [50]. In the particular case of vital organs, whose replacement or long-term maintenance is impossible, transplantation is obviously the only possibility of life. In cases where a heart, lung or liver transplant is needed, many patients will die while waiting for the organ that never arrived [46]. As a typical example of the meaning of this global crisis, 95% of U.S. adults support organ donation but only 54% are actual registered donors [51].

Economic aspects

The analysis of costs at an international level shows a significant difference in the cost of the same transplant according to the socio-economic possibilities of the respective countries. If we consider that the essential therapy to achieve a transplant is a human organ, especially after life, a cost difference would not seem to be justified. The paradox is simple: Why the different transplant costs when without organ donation, death is inevitable? These observations, important in the consideration of economic measures, might be consistent with the ethical principles regarding transplantation. The following inquiry is a challenge for the health decision-makers: Shouldn't the costs of organ or tissue transplantation be considered equal with the charges for more complex surgical interventions for the same organ? [52-54].

On the other hand, in some countries where the state provides financial support to patients in the case of transplantation, the maintenance of immunosuppressive medication has been defined for a certain time. This regulation is clearly contrary to the concepts

of equity and justice that states must guarantee to all citizens. In this regard, it is of interest to mention that the provision of immunosuppressants to transplant patients has been positively modified in the United States [55,56].

Given that one of the non-cognitive barriers to organ donation is scepticism concerning medical behaviour, a rational analysis of the significant economic differences in organ transplantations would be a significant element in more efficient social conduct regarding organ donation [57]. Furthermore, a revision of the current economic aspect of transplants should include the role of the pharmaceutical industry. Transplanted patient survival depends on the use of anti-rejection drugs during their lifetime. Pharmaceutical industry leaders should consider that the cost of this vital lifetime therapy will be cheaper than the same drugs prescribed for different diseases in the short term [56]. It is essential to always bear in mind that organ and tissue transplantation, made possible by the advancement of medicine, is an expression of social solidarity expressed by organ donation, particularly in the case of deceased donors. Yet throughout the transplant era, organ shortages remain a public health problem. Certainly, patient deaths are essentially affected by individual donation denial, but current social education policies on organ donation and inadequate university education on organ transplantation are also important factors in this crisis. The uncertainties related to donor organ allocation also create stress for the physicians, patients, and families involved in the donation decision. A change in social behaviour towards donation is fundamental for social welfare.

This serious and persistent crisis, which compromises social well-being and the possibility of life for thousands of patients, requires a fundamentally simple solution: a change in social behaviour towards donation. Unfortunately, current experience shows the complexity of achieving this solution in practice. Essentially, this objective must be achieved, on global scale, through clearly defined education so that citizens have a clear understanding of the social and individual benefits of organ donation. This effort should generate the knowledge and acceptance of what organ donation, particularly after death, represents for everyone: the possibility of life at any moment of our lives [21].

In addition, nowadays there are medical and technological options to complement the fundamental alternatives for the solution of this crisis. Scientific advances in the area of transplantology are of growing interest. Significant progress has been made in the use of mechanical perfusion for the conservation of the different grafts, which allows the medical team to evaluate post-graft functional capacity [58]. What's more, although the practical results for their clinical application will require some time, it is important to mention the advances in the knowledge of stem cells and the xenograft possibilities concerning transplantation [59-63].

Summarizing concepts and proposals

Current behaviour shows that organ donation is spontaneously massively accepted but often when a person dies, family members tend to reject this prior agreement. Consequently, due to this persistent social behaviour, organ shortages are responsible for the increasing and unfair mortality of patients on waiting lists. This sad reality is despite the persistence of the motto: "Organ donation is a gift of life". A recent study showed that only 42% of the organs of deceased donors are used in the US; similar social conduct has been observed in Europe. It is imperative to find all the reasons responsible for this negative social behaviour and try to resolve them [46-63].

Despite the educational programs on organ donation, people have not yet been able to identify their essential responsibility regarding organ transplantation. People must be aware of their civic responsibility in the face of death due to the shortage of organs. We must try to understand that donating organs can essentially turn our body after death into a chance for life for those who will need it. A greater problem consequent with the lack of organs is generated basically by families refusing permission for the organs of their deceased relative to be used. The prospective actions to overcome this social barrier to organ donation must be conditioned by new proposals addressed to the following.

Medical teams

- Medical teams are not always trained in organ donation due to insufficient education. The aptitude of medical teams regarding death and organ donation issues often makes the difference between acceptance and rejection of consent by the family.
- Increased general work in the ICU causes loss of interest in the organ donation process.
- There is a need for incorporation of professionals with direct responsibility for detection and explicit action concerning recognition and the evolution of potential organ donors into ICU teams.
- A significant correlation between the domain of physicians operating in intensive care units and professionals from other hospital units was found in cases where the relatives' attitude toward donation was positive.
- Physicians should be involved in informing families and also in requesting organ donations [65,66].

The public

People's negative reactions to organ donation are mainly due to:

- Not taking into account that organ transplantation is a common medical practice.
- Prejudices and lack of information.
- Doubts about potential donor diagnoses and medical treatment.
- "Brain death" is a barrier. People have qualms about donating when the heart is still beating: "Is the patient really dead?"
- Stories about criminal elements involved in transplants.
- Lack of awareness that during life, we are potential recipients more than organ donors.
- Not understanding that deceased donors offer a source of health for those suffering from terminal organ failure.
- Dissatisfaction with regard to inappropriate information and support from staff when brain death is announced and a donation request made.

Donating the organs of a loved one can generate primary feelings:

- The self-preservation instinct.
- No one thinks about their own death until a loved one dies.
- The conception that the integrity of the body is mandatory for the path to eternity.
- People cannot allow their organs, or those of their loved ones, to go into the hands of strangers.

Suggestions for improving the current social behaviour concerning organ donation

Make known the UNESCO Declaration: Present generations must protect the future needs and interests of people, particularly through education" [67].

A thorough rational education on donation represents a solution to this unresolved dilemma.

How should a positive educational project be organized?

A realistic and intensive educational program should consider the following priorities:

- The active participation of the state.
- This problem requires expert evaluation.
- The full participation of all sectors of the community is required.

The active participation of the states

- States should evaluate specific educational planning related to the behavioural habits of each society.
- The responsibility for these programs basically involves state health and education authorities, medical-scientific communities, representatives of monotheistic religions, and interested NGOs.
- The development of new projects on organ donation requires experts in education, social pedagogy, and legal-ethical-moral and religious principles.
- The media must be properly instructed on how to create public awareness about organ transplantation and enhance human responsibility and solidarity.

Youth participation

Young people have not been practically involved in education about donation and transplantation.

- "Socrates argued that education consisted of extracting what was already within the student." Socrates and his influence on education [68].
- "The truly human society is a learning society, where grandparents, parents and children are students together" [69].
- Family, schools, human development. Educational research routes [70].
- "No one has yet realized the wealth of sympathy, kindness, and generosity that hides in the soul of a child. The effort of all true education must be to unlock that treasure" [71].
- Helping young people understand transplants increases the chances that they will sympathize with organ donation and discuss the issue with their families, multiplying the educational effect [72].

Should a message change be considered?

Pope John Paul II, at the XVIII International Congress of the Transplant Society, supported the idea of educating young people about organ transplantation as a way of improving societal attitudes.

- "Education will enhance the value of altruism, protect people from exploitation, and emphasize the meaning and value of organ donation."
- "It is necessary to instil in the hearts of people, especially the young, a deep appreciation for the need for brotherly love, a love that can find expression in the decision to become an organ donor".

The practice of transplantation requires a specific legality

- The main cause of this health crisis is the relatives' refusal to permit organ donation from a deceased patient.
- Although different legal solutions have supported organ donation, a point of view that has not been analysed is to consider whether a negative attitude does not imply an action compatible with the concept of abandoning people in danger.
- The use of organs and tissues for transplantation should be a fair agreement and a conscious social duty.
- "Society must face the fact that cadaveric organs can save human lives, perhaps its own. To achieve this objective requires a well-founded decision to advance in the policy of

preservation of life” [73].

- Regarding this social demand, ideas and suggestions have been put forward over the years: “The rescue of a person in danger of death, when the action does not involve personal risks, is a legal responsibility” [74].
- “New policy designs are needed to increase donation rates and reduce the widening gap between supply and demand for organs” [75].

New donor acceptance criteria

The current expanded criteria donor is a modification that breaks down the barriers by accepting donors with marginal organic or functional alterations. Although this modification of the donor acceptance criteria has allowed an increase in transplants, the reality is that while undoubtedly beneficial, the different potential evolution of these transplants in the long term are potentially inferior to the conventional “healthy” donor. This unconventional medical resource should not in any way blur the need to modify social behaviour towards donation through more efficient educational programs [76].

Economic modifications in the evaluation of organ transplantation

- The concept to be evaluated is that the donated organ is the only solution to the problem.
- The diversity of costs of transplants “worldwide” is significantly critical.
- An ethical rule is that transplants should not be traded.
- On the other hand, the medication required for now is for life. Shouldn't the drug cost for a transplant be different?

Final remarks

An unequivocal education can promote a culture that solves the organ shortage. Current barriers and misinformation must be considered when conducting trials to develop different behaviour at all levels of society, particularly medical professionals and young people. Schools must incorporate programs on organ donation and transplantation into their curricula, to prepare children for their future role in a society that requires a full understanding of an urgent dilemma: People are dying unnecessarily due to organ shortages. Early childhood education is a force that can change social opinion. New and well-defined legal conceptions must be enforced in relation to the significance of the rejection of donation and the immediate consequences of this – people are sentencing to death those waiting for an essential organ to save their lives.

Furthermore, consider the economic implications of transplantation – the essential therapy for its achievement is a human organ, basically from a deceased donor. This circumstance justifies the existence of a worldwide consensus that coordinates economic behaviours that do not support diversities in costs for the same medical procedures. The primacy of organ donation as a fundamental solution to transplantation could also be considered at the level of the pharmaceutical industry. Immunosuppressive medications in general are expensive. In the case of transplants, they are at this time prescribed for life. In contrast, the same medications as treatments of different systemic diseases, depending on their evolution, may be temporary. These considerations do not justify an analysis on the part of the pharmaceutical industry.

Conclusion

The technical and scientific evolution of organ transplants has been remarkable. However, the shortage of organs and the ever-increasing deaths of patients on transplant waiting lists clearly show that the current situation needs to change. Many of the

possible solutions proposed in this study can be controversial. Therefore, it is particularly necessary an analysis by experts of the subject's indicators of a change in the strategies currently carried out in relation to social behaviour on organ and tissue donation. It is essential to propose new alternatives that point out the gravity of this crisis. As well, the possibility that new proposals may develop doubts and produce complex reactions at all levels of people, require expert discussion, for the achievement of programs that may give a clear understanding of this problem to Society. The importance of a review of education programmes at all levels, particularly in youth education, university programmes with regard to transplantation and organ donation, with the participation of the monotheistic churches, for a clear understanding by the people about their vital participation in a health program requiring their clear understanding and involvement in it, will be significant for the solution of this acute medical emergency.

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