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### **Review Article**

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## Review and Proposals Regarding Organ Donation Education

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#### ABSTRACT

The global persistence of organ shortage justifies a study of the current state of this social emergency and a rational discussion of the possible alternatives for a necessary solution.

Analyses of the results and the conclusions of authors who have studied this problem in depth have suggested the following preponderant factors as responsible for this reality and generated possible solutions to this health and well-being crisis:

- Review of inhibitory factors of social behaviour towards organ donation
- Evaluation and changes in social and professional educational programs on transplants and organ donation
- Discussion of specific, potentially controversial legal proposals
- Review of the relative global compliance with the ethical-economic standards established in relation to the costs of organ transplants

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#### Introduction

Societal participation is the basic factor for success in the practice of the great medical-scientific advance that organ and tissue transplants represent today. Over time, medical-social education at all levels has not been decisive in its intention to achieve a society that fully adheres to the act of organ donation after death. One look at the continuous growth in patient waiting lists and the increasing daily mortality shows this is a remarkably evident reality. It is important to mention that, despite these insufficient statistical results, a global review of current educational programs has never been realized. This should be a priority for the decision makers of social programs of health education to fully guarantee the wellbeing and protection of people [1-3].

#### **Social Education**

The shortage of organs is a social and health crisis, and this should motivate political leaders in education and health, jurists, members of monotheistic religions, psychologists, economists, and even the patients themselves to review current education programs at all levels. Effective proposals to solve the persistent lack of organs and its profound consequences are urgently needed.

Social trust in organ transplantation is based on equity, altruism, and autonomy. Saving lives is a moral endeavour. Current public education on organ donation involves charity and is highlighted under the motto "Organ donation is a gift of life."

Although social knowledge and the practice of organ transplantation have progressed significantly over the years, the evaluation of the statistical results of transplants, waiting lists, and patient mortality indicate that current public education campaigns have not fully achieved their medico-social objective [4].

It is also common to find information that links donation and transplants with corruption, inadequate medical ethics, and even organized crime. The reality is that criminal acts related to organ transplants have never been confirmed by the courts. However, a trade that is not legally criminal but not ethical-moral either, "transplant tourism," generated by medical teams without values or principles and operating in countries without transplant laws or with poor health controls has a negative impact on the confidence of the population regarding organ donation. The media has also played a negative role by spreading unverified news about the existence of illegal activities linked to organ transplantation [5].

The negative response of families to donation is a significant cause of organ shortage. Clear information about donation and its consequences for the general population is necessary to overcome the social barrier towards contributing to their own wellbeing. In addition, dialogue about this issue within families is essential for a positive donation decision. Fundamentally, in response to the information provided through social education programs, people should fully understand the hegemonic role played by organ and tissue transplants in solving a health, economic, and social crisis in three basic senses:

The transplant puts an end to the need for haemodialysis to preserve life, freeing the patient from the machine and at the same time generating a fundamental benefit for state Citation: Félix Cantarovich (2022) Review and Proposals Regarding Organ Donation Education. Japan Journal of Clinical & Medical Research. SRC/JJCMR-148. DOI: doi.org/10.47363/JJCMR/2022(2)139

health budgets.

- Transplants require the "use" of our body after death as the only resource for the lives of thousands of patients.
- In the face of death due to a shortage of organs, people must be aware of their civic responsibility. Society must try to understand that donating organs after death to those who need them is giving life, including to themselves and their loved ones. The full individual and collective participation of society is essential for the success of organ transplantation on a large scale.

A review of educational donation programs should consider Olson's classic concept of reciprocity in individual donation consent decisions. By reciprocity, the author considers that when the individual social benefits obtained from collective actions are not made clear, personal participation in the action may be uncertain. Reciprocity must be an essential element in new educational programs aimed at society [6].

Regarding the impact of educational programs on social behaviour towards organ donation, as we have previously commented, special attention must be paid to the usefulness of the worldwide slogan "Organ donation is a gift."

This controversial slogan is based on the ethical-moral concept of solidarity. Nevertheless, it does not explain the possibility of ever personally needing an organ, something that could happen in anyone's future. As Olson suggested, negative personal behaviour may result when it is not clear that collective social action can bring individual profit [6]. A slogan in education programs should reflect that what organ donation really means is that society can "share" the unique possibility of life with those who need an organ transplant [7].

In addition, the notion that during life we are all potential recipients of organs, and the significant idea that today a cadaver can represent a unique source of health should be taught in new educational programs regarding organ donation.

The evolution of the socio-educational programs on transplants and organ donation over the years was conducted following the concept "Donation is a gift of life."

Controversial comments about the effectiveness of this slogan as well as recent research suggesting the impact of non-cognitive factors, such as fear of death, mutilation, and mistrust of medical indications, as barriers to donation prompt a review of the social education programs, including new slogans that positively influence individual behaviour towards organ donation.

### In This Regard, we consider It Useful to Suggest to Society the Following Concepts

- Throughout our lives we are all potential recipients of a transplant.
- A lifeless body is a unique potential source of health for others.
- Education can transform organ donation into a necessary social commitment.
- Organ shortage is a health emergency.
- Donating organs is not a gift; it is sharing the possibility of life.
- Monotheistic religions accept organ donation after death.

These reflections on the social motivations for organ donation consent, psychologically and pedagogically adapted for easy understanding, should be well considered when reviewing educational programs. The evaluation of the scarcity of organs must allow defining the most significant causes of its persistence, and establishing educational proposals related to this crisis in social health and legal criteria capable of generating changes.

These programs must cover the system's deficiencies and people's doubts, and serve to highlight the ethical- moral drama of not accepting organ donation, an exclusively personal responsibility that implies denying another human being life.

An organ transplant is not a private transaction between donor and recipient; it is an expression of social solidarity. However, over the years nothing has changed, and the shortage of organs continues to be a public health problem.

Certainly, the daily deaths of patients on organ transplant waiting lists are an expression of social irresponsibility, current deficient public education policies, and inadequate university training in organ transplantation.

Government health and education agencies, medical institutions responsible for the practice, and non-governmental organizations must promote new education programs that give society a real understanding of what the unjust death of patients waiting for a transplant means today.

#### **Professional Education**

The inadequacies of university education programs have been an essential cause of the unsatisfactory family response to donation. Education and training in behaviours and knowledge that will facilitate the medical teams when discussing organ donation with families will increase the confidence of relatives in the medical efficacy of their work. Undoubtedly, a principal factor in achieving a change in the critical medical-social situation generated by the shortage of organs will be the pragmatic utility, at university levels, of education programs on organ donation and transplantation [8].

New university transplant programs should emphasize that the essential factors in people's decision to donate organs are fear of death and mutilation and the lack of clarity on the views of monotheistic churches. Modifications of university training in organ donation and transplants must consider medical staff's general ignorance of these non-cognitive factors as predominant barriers to organ donation [9,10].

On the other hand, a thoughtful conversation with the deceased's family has been highlighted as crucial for organ donation as well as alleviating the anxiety of the family at an upsetting time. A rationally structured university education based on the concepts mentioned above can be a way to promote a positive social culture in the face of the critical situation of patients on waiting lists [11,12].

#### New Donor Acceptance Criteria

Organ shortage and its profound consequences have generated a notable change in the accepted medical characteristics of organ donors. The so-called extended criteria donor, which may present marginal organic or functional alterations, is a modification that breaks the classic admission standards. Although this change in donor acceptance criteria has increased the number of transplants, which is undoubtedly beneficial, the potential long-term outcome of these transplants is lower than that of the conventional "healthy" donor [13].

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Although this necessary change in the classic donor acceptance criteria has generated a certain increase in current organ donation statistics, this unconventional medical resource should not, in any case, obscure the need to modify through more efficient educational programs the current social behaviour towards donation.

#### Youth and Education in Organ Donation

Global education on donation and transplantation has not yet involved young people. Until now, this interest has been anecdotal. The importance of youth education is not globally widespread. Concerning children's education, we can mention the following significant thoughts:

- "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" [14].
- "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" [15].

Given the mortality rates on waiting lists, it is essential to increase organ donation from child donors. This effort must be accompanied by an educational policy that offers bereaved families the maximum rational information that fully justifies this difficult decision. Any legal or ethical-cultural issue that prevents parents from offering the organs of their deceased child to prevent the deaths of other children must be clearly defined [16].

The death of a child generates anguish and fear. An analysis of the factors that lead parents to consent to or reject donation would be of great value in the elaboration and design of effective educational strategies that would change the current common tendency of parents to refuse to donate the organs of their deceased child [2,17].

Many are the reasons for the current unsatisfactory social response towards donation in the case of potential paediatric donors:

- The constant message addressed to society based on the concept that "organ donation is a gift of life,"
- Incomplete information on the dramatic problem of waiting lists and daily "wrongful deaths" of Children, Alternative messages with the possible social impact of modifying behaviour regarding organ donation in childhood:
- The notion that we are more likely to be recipients than organ donors,
- The concept that cadaveric organs are a unique and irreplaceable source of health,
- The positive and encouraging attitude of the monotheistic religions towards the donation of cadaveric organs,
- Understanding that donating organs is not giving a gift but a unique possibility of life [18].

Recovering from the pain caused by the death of a child may be partly facilitated when the parents donate

their child's organs and are clearly aware that, by their action, they are giving life to another child.

Educating parents about all aspects of organ donation is a potential solution to the shortage of paediatric organs without legal or ethical-moral controversies. Correct and complete knowledge about organ donation is a way to raise public awareness. This reality is more evident when the persistent deaths of children on the organ transplant waiting lists are analyzed.

Health and educational authorities should consider structuring an public education project on organ transplants as a viable solution

to infant mortality on organ transplant waiting lists a priority in education. For this purpose, a group of experts in child education, religion, sociopsychology, transplants, and health policies should develop an easily understood social communication program [17,19].

Specific training of the medical team will favourably influence parents' decisions about organ donation. The feelings of the parents at the time of the death of a child are a unique crisis and difficult to handle, obviously requiring extreme sensitivity by the staff responsible for this difficult medico-social situation [20].

The importance of education to achieve a change in social attitude towards donation and transplantation in paediatrics must be evaluated pedagogically. Due to its sensitivity, this issue requires careful decision making in the modifications to the current social education programs on organ donation.

On the other hand, education on the subject at the school level is also important. Children are able to interpret the basic concepts of this difficult topic and may even generate knowledge and family discussions about it [21,22].

Surveys performed in schools in different countries have shown that the main problems that inhibit positive family conduct towards organ donation are:

- Lack of clear and complete information of social education program
- Media disinformation
- The image of mutilation generated by the donation
- Fear of death generated by the death of a loved one [1,23,24].

In evaluations of the problem of organ shortage, the importance of educating young people about organ donation was pointed out. However, in practice this activity is anecdotal, and a global generalization of this need has not been developed [22].

Educating children and young people through revised social education programs on transplants, evaluated with the participation of professors and teachers, pedagogues, psychologists, and leaders of monotheistic churches, that clearly inform society that organ transplants represent the solution of an enormous social welfare problem for all can be a way to improve the current social behaviour around organ donation.

The systematic incorporation of these programs into the curricula of primary schools, colleges, and universities could be invaluable in the search for a solution to a health crisis unacceptable for 21st-century society.

#### The General Objectives of a National Program of Social Education Seeking to solve this Complicated Problem are to

- Elaborate on the tragic deaths of the children on the organ transplant waiting lists, a valuable educational project offering society knowledge that can cover the current paediatric deficiencies in the field of transplants,
- Generate the active participation of monotheistic churches in their potential capacity to help parents face the pain of the death of a child,
- Collaborate with the media in disseminating the critical situation of children on the waiting lists and the fundamental need for a broad public awareness of this reality.

Due to its sensitivity, modifications of the current social education programs on the importance of organ donation in paediatrics

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require careful decision-making [25].

Shoenberg, a great American educator has already outlined the prospect of children talking about the subject of organ donation with their families. To achieve this positive action, children need adequate information. The support of teachers is essential for this achievement [21,22].

The published literature on education on organ donation and transplantation includes mostly high school students. There are few mentions of organ donation education in elementary schools [22,26,27].

#### The General Objectives of a National Program Would Be To

- Develop an educational project that clearly informs society of the terrible reality that is the tragic deaths of children on the organ transplant waiting list,
- Cover current deficiencies at all educational levels in terms of donation and transplantation, especially about infant mortality,
- Actively collaborate with the leaders of all monotheistic religions in actions aimed at the achieving a positive response from parents for the achievement of the incomparable act of contributing to saving the life of a child,
- Collaborate with the media to improve information about this problem and increase public awareness of the need for solidarity.

On the other hand, educating children about organ transplantation can be a way of changing social opinion as well as a stimulus for modifying the current models of public information. Changes in social education programs on organ donation and transplantation, and the active participation of professors, teachers, and monotheistic church advisors, could be vital in the search for a solution to an unacceptable 21st-century health crisis.

#### A Public Social Organ Donation Program of Education

In 1981, the Argentine Transplant Organization (CUCAI, today INCUCAI) organized a National Training Program for Transplant Coordinators. One of the main objectives of these programs was to include the topic of transplants and organ donation in the curricula of schools, colleges, and universities. The transplant coordinators exposed teachers and children in different country regions to courses on this topic. The comments and subsequent communication work carried out by the young people showed their interest in and understanding of the information received, including difficult topics such as the concept of brain death. After this experience, it was remarkable how children developed their family's interest in organ donation.

#### **Educational Project Proposal**

The development of a training course by educational specialists on transplantation programs is recommended. These professionals would be teachers, nurses, transplant specialists, sociologists, and psychologists able to give basic information about transplantation and organ donation to schoolteachers and pupils.

#### **Transplantation Educational Programs**

The development of a training course for teachers, university nurses, social workers, and psychologists who would then be able to provide basic information on transplantation and organ donation to educators and students, is also recommended.

The training program would include special pedagogical instruction and basic concepts on transplant history, organ exchange, medical

#### **Teaching Model**

Classes given two to four times during the year. Primary level:

- Seven to nine years of age: Introduce the concept of transplantation by using stories and fables.
- Ten to fourteen years: Progressive basic information about organ donation integrated into the correlated existing topics of the school curricula (i.e., biological sciences, social sciences).

#### Secondary level:

- The education program on transplants and organ donation to be incorporated into current study programs will evaluate subjects related to essential aspects of the art and knowledge of transplantation: legal, ethical, psychological, biological, social, and economic aspects.
- The main objective should be to provide students with the scientific bases and knowledge necessary to analyse and objectively understand the still insufficient current social behaviour towards organ donation [27].

#### Suggestions for Improving the Current Feelings Concerning Organ Donation

Realistic education programs about donation represent a solution to this unresolved dilemma. A positive change from the current message might consider the following proposals:

- a. The specific legality for the practice of transplantation
- b. The potential relationship between cremation and organ donation
- c. The economic aspects of transplantation practice at an international level

#### A Specific Legality for the Practice of Transplantation

- As the main cause of this health crisis is the relatives' refusal to donate the organs from a deceased patient, a new education policy design may increase donation rates [28].
- Different legal solutions have supported organ donation; however, a point of view not yet analysed is whether a negative attitude towards donation could not be considered, from an ethical point of view, as an action compatible with the abandonment of endangered people.
- People must consider the fact that cadaveric organs can save human lives, including their own. Achieving this objective requires a well-founded and defined decision to advance a medico-legal policy that allows society to preserve life without reservations [29].
- Regarding this social demand and its consequences, a suggestion for a concrete analysis was issued at 2006, by Howard: "The rescue of a person in danger of death, when the action does not involve personal risks, is a legal responsibility" [30].
- New strategies regarding organ donation and transplantation should maintain as fundamental ethical values the principles of justice, utility, and respect for people. Failure to assess these factors is ethically and legally unacceptable.
- Regarding the lack of organs as an urgent social demand, several authors consider that when this action does not entail personal risks, organ donation is a legal responsibility and a social duty [31].
- To prevent questionable ethical-legal proposals that could be considered by society as contrary to the principles of autonomy and generate a potential public conflict, new

educational programs must present a broad pedagogical explanation of the foundations that justify these structural modifications.

- Society's conceptual recognition of its responsibility concerning organ donation consent will allow people to accept there is socio moral-legal consequence to refusing to "rescue" someone in danger of death.
- The use of organs and tissues for transplantation should be a fair agreement and a conscious social duty.

### The Potential Relationship between Cremation and Organ Donation

- The idea of mutilation is one of the main barriers to organ donation. The possible relationship between mutilation and cremation, considering cremation, family mourning, and the position of monotheistic churches, deserves an analysis.
- Cremation was totally prohibited in the year 789 in France, and in 1887 it was criticized in French legislation. Today, ~40% of the French choose to be cremated. That figure rises to 85% in Switzerland and 90% in the UK and Scandinavian countries. In the US, the cremation rate was 53.1% in 2018. In short, there is no particularly notable connection between cremation and levels of bereavement in family behaviour. A clear understanding of this reality and its relationship with the opposition to mutilation as a cause of the refusal to donate should undoubtedly be considered pedagogically in the necessary revision of the current social education programs [32].
- Undoubtedly, generating an understanding of the relationship between cremation and organ donation must be supported by social education programs, developed by specialists in ethical, social, psychological, and religious fields, that clearly outline the respect for autonomy and the importance for the life of each person that receives organs from a deceased donor.

### The Economic Aspects of Transplantation Practice at an International Level

- An important aspect of the information addressed to society, which may be the key to the necessary modification of the current public attitude towards donation, is the economy of transplants.
- In particular, and as an example, we will refer to the international costs of kidney transplantation [33].
- There is a paradoxical difference in the costs of this medical act, where the only total solution is the transplantation of organs, particularly from deceased donors, at the international level. The disproportion of prices clearly contradicts the ethical precepts defined internationally in relation to the practice of organ transplantation [34].
- The importance of economic factors in social behaviour towards organ donation as a solution to transplantation could also be considered at the level of the pharmaceutical industry.Immunosuppressive drugs are expensive. In the case of transplants, the prescription of them will potentially be for as long as the transplanted patient lives. In contrast, the same drugs as treatments for different systemic diseases, depending on their evolution, can be transitory. Would these considerations not justify evaluation by the pharmaceutical industry?
- A logical rationalization of the costs of a medical intervention that requires the use of the organs of a deceased person as a fundamental therapy developed by definers of health policies at different medical and institutional levels and the pharmaceutical industry could be essential to a positive social response to organ donation.

#### Final Remarks

An unequivocal education can promote a culture that works to resolve the organ shortage. Current barriers and misinformation must be considered when conducting trials to develop different behaviour at all levels of society but particularly in 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 concepts must be enforced in relation to the significance of the rejection of donation and the immediate consequences of this – people are sentencing those waiting for an essential organ to death.

Furthermore, the economic implications of transplantation must be considered – the essential therapy for its achievement is a human organ from a deceased donor. This circumstance justifies the existence of a worldwide consensus that coordinates economic behaviours so the costs for the same medical procedures are similar.

The primacy of organ donation as a fundamental solution to transplantation could also be considered at the level of the pharmaceutical industry.

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

New proposals that can create doubt and produce complex reactions in all levels of society require expert discussion if the conscious social alternatives of acceptance and pedagogical methods are to be understood.

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