



Perception of organ donation by Moroccan population

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Abstract

Introduction: In Morocco, there is a big disparity entre donation needs and the number of available grafts. This is partly due to families refusing to take the organs of their loved ones Diagnosed with brain death and largely to the Lack of knowledge about organ donation and transplantation. In this look, we conducted a survey of a representative sample of the Moroccan population with the objective of assessing the perception of organ donation in Moroccan citizens.

Materials and Methods: We Conducted a survey of 1000 Moroccan Citizens through a survey is launched to social networks for Assessment Their knowledge, attitudes and beliefs about organ donation. We also sought to know the Reasons for refusal of acceptance and those to donate their own organs and Those of Their relative following a brain death.

Results: One hundred percent of the subjects surveyed Responded to this questionnaire. Of those surveyed, Two-Thirds Were female. The average was age 27 years old. Among the 1,000 participants, 90.4% Knew organ donation in Morocco. Half with a value of 51.9% think that religion is in favor of giving. The majority Agreed to Their give organs after death with a gain of 87.4%. Among the group Refusing the Their donation of organs after brain death the Lack of confidence in the procedure of the donation process comes at the top of the list with a value of 43.3%. Moreover, only 65.8% would be able to donate organs of their loved one after brain death. Among the group of Refusing investigation the donation of the organs of their relative, the ignorance of the will of the deceased comes in first with a gain of 65.1%. Regarding the law 66.9% of our participants are unaware of the potential of Donors, 70.7% are aware of the register of Donors. Finally, only 39.1% INTEND to register their acceptance in the register of Donors.

Conclusion: Young Moroccans-have limited knowledge relating to organ donation. The development of this therapy needs to suit les year project of adequate information and motivation of general population.

Keywords: Morocco, disparity, adequate, Perception

Introduction

Currently, and despite scientific progress in terms of transplantation and transplants, talk about organ donation remains taboo in Moroccan society. While that other countries like France think of other sources of transplantation for meet up the needs of patients, we are still looking to motivate public acceptance of the idea of organ donation.

In Morocco, many patients awaiting transplants die while they are in list transplant waiting. Meanwhile, a large number of patients reported in state brain death are not taken. The family is the primary cause opposition levy failure of organs from people diagnosed in the state of death brain. Other inhibiting factors are mainly related to a lack of communications, media and absence of a real national plan to promote donation and organ transplantation.

Faced with this paradox involving the organ shortage and the family refusal to levy we looked for avenues to reduce the number of refusals, promote organ donation and thereby reduce the risk of death waiting list graft.

According to the Advisory Council of Human Organ Transplantation, the number of donors on the register of the acceptance of the gift today varies between 1 500 and 1700

volunteers. What remains low based on the number of patients chronic diseases.

The objective of this work is to investigate the social networks to assess the perception of the Moroccan population of organ donation.

Materials and Methods

We conducted a descriptive and observational study among 1,000 Moroccan citizen son the scale international and the majority lives in Morocco, the two criteria were Moroccan nationality and age between 16 and 75, par through a questionnaire launched on social networks in a period of 38 days between March 22 and April 2, 2019.

The goal is to evaluate the perception of our people on the organ donation in Morocco.

We tried with this investigation, to know the motivations for accepting the gift organs such as the refusal of it, for the people in question and a family member when they are in position to make a decision on the death of the last.

Results

The average age of patients was 26.69 years +/- 8,077 years, with

extremes of between 16 and 75 years, a majority of participants of the fairer sex with a sex ratio F / M to 3.11.

Among the 1,000 participants, 88% are level socioeconomic means and 87% had a graduate level, we notice a clear predominance of Muslims with value of 92.2%, with net lack of participation Christians and Jews in the survey.

■ **Knowledge of the population about the organ donation**

90.4% of respondents have heard of organ donation in Morocco. Information was successful: 46.1% thanks to the internet, followed by 21.5% thanks to healthcare professionals, and only 11.1% who have heard about the Moroccan TV (Figure 1), 75.3% of participants in formed the definition of brain death and 73.4% know the organs that can be taken (Figure 2), as to the knowledge of the age limit for organ donation: 40.7% of participants think that there is no age limit to donate organs.

Regarding the position of religion against organ donation, half (51.9%) think that religion does not prohibit organ donation to save lives against 6.2% and only 25% who think that religion does not prohibit it when it is a donation for scientific purposes.

Among the 1,000 participants asked about their Knowledge of legislation for organ donation, we find that 70.7% are aware of register designed to express the agreement organ donation, and only 39.1% have register their acceptance, 67% of participants are not aware that every citizen has not expressed its position during his lifetime in the national register remains a potential donor after his death, while 51.1% believe that the gift organ is marketed in Morocco.

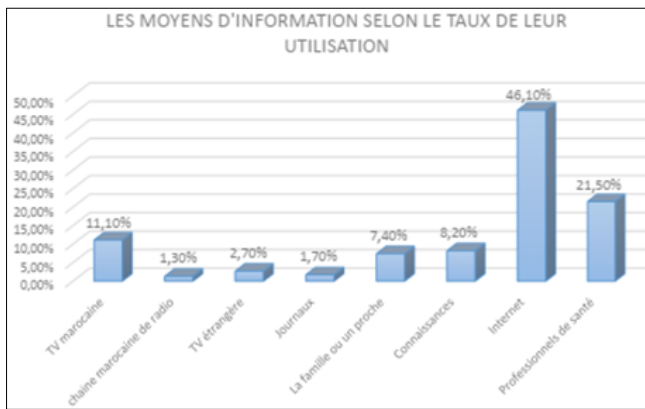


Fig 1: Distribution of the media

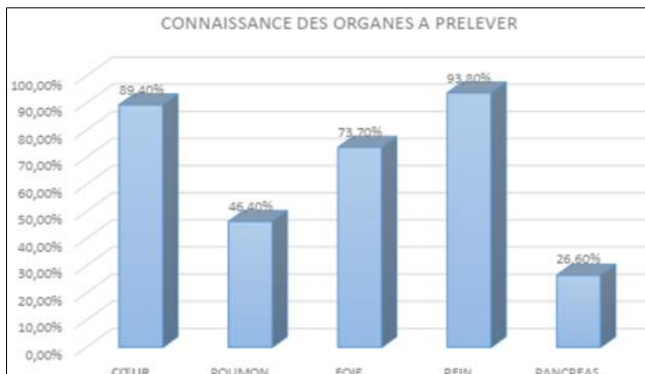


Fig 2: Distribution of the study population according to

According to their use by the study population knowledge of organs to take

■ **The position of the population and their motivations in organ donation**

87.4% of participants to organ donation while 4.3% are against. But only 65% are for the removal of organs from the body of a deceased loved one, and 13% are against, acceptance motives were 67% knowledge of the deceased's will and 58% will save lives, while the reasons for acceptance for their own body were 52.8% sustainable charity 85.1% the purpose of saving lives, 24.4% Using the progress of science and 8.3% the earlier confrontation with circumstances requiring organ donation, the grounds for refusal were cited lack of confidence in the procedure of conduct of Giving, lack of information about the subject, the idea of prohibition by religion, the integrity of the body, and does not know the will of the deceased (Figure 3 and 4)

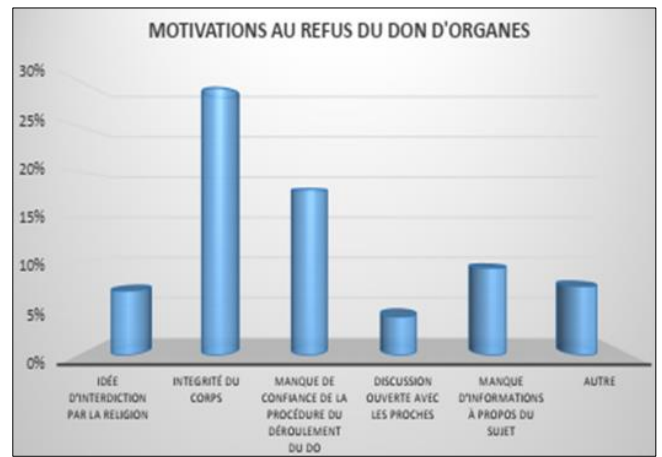


Fig 3



Fig 4

Discussion of Results

The results of this survey reflect the knowledge and attitudes of the Moroccan population in the donation and transplantation of organs. Our population has limited knowledge about organ donation. This could be explained by the insufficient number of awareness campaigns aimed at the general population in the donation and transplantation of organs, conducted by health

professionals.

Of those surveyed, 90% have already heard of organ donation in Morocco

and the main sources of information were the media and discussions.

This proportion is similar to that found in the study conducted by Hamouda *et al.*, in Tunisia, or information on renal transplant interested 80% of the surveyed population [1].

Another survey conducted in Qatar [2] showed that only 38.6% who have heard of organ donation. That is to say that the possibilities exist and are supportive graft in African countries. As we have observed, the media could be the best choice for the message, so that people can understand their roles and responsibilities regarding organ donation.

The lack of Quranic verses and Hadith clearly authorizing the removal of organs has been much discussion on the religious legitimacy of such practices,

Half Moroccan (51.9%) think that religion allowed organ donation, while in Iran and Turkey almost 80% of the population studied believed that religion supported organ donation [3, 4].

Several opinions and Fatwas were issued vis-à-vis the position of religion in the gift, the first fatwa in 1952, they concluded the legitimacy of organ donation and transplantation. Considering that to save a life is a greater need for the preservation of the body, and by referring to the Koran and Sunnah, it clearly appears that there is no better way to implement this concept in the field to save lives in transplanting organs donated to replace failing vital organs [5]

The Muslims who refuse organ donation and do it in the name of religion are solely responsible for their choices. Many reasons suggest that this refusal is justified by other reasons not expressed [6]. The Muslim dimension has often been exaggerated when it laid the gift of organ problem for Muslims.

The existence of legislation governing organ donation in Morocco was known by most young Moroccans (70.7%), against 28.7% in an investigation Tunisian [1]. Note that 40% of the French population are not aware of the law [7]. In a Pakistani study only 13.3% of the student population were aware of the existence of "transplantation of human tissues and Bill of organs", such knowledge could have a major impact on their decision to donate their organs [8].

More than 87% Moroccan youth willing to donate their organs after death, which is consistent with the findings of a Dutch study (80%) [9]. The transplant from cadaveric donors thus appears feasible in Morocco in terms of our study highlights the important number of potential donors. In Senegal, 71.5% of the population expressed a desire to donate a kidney in the treatment of chronic renal failure [10]. Furthermore, 45% of students Pakistan were ready to give medicine organ [11]. An Indian study in future doctors showed limited knowledge regarding organ donation. This was explained by the lack of training led to this effect [12]. But only 65% are for the removal of organs from the body of a dead relative and 13% against.

The lack of confidence in the procedure of the progress of the gift comes top of the list of reasons for refusal of donation in our study 43.3%, followed by 32.5% by the lack of information about the subject, and 20.3% cited religion, Lebanon, where half the population is Christian, the National Committee of the gift and transplantation of organs and tissues cited religion as a major

cause of rejection (46.7%) [13]. In Asia, a study India conducted among students révéle' the impact of religious beliefs and the difficulty in changing these beliefs blind, with only 4.3% of those surveyed déclare' their religions allow organ donation, and number has decreased to 3% after training on donation and organ transplant [12]. Not far from Morocco, Tunisia, where the refusal organ donation reached 44.1%, the harm to the body after intégrité' Death comes top of the list of reasons for refusal, explained by the fact that in the Muslim faith, the body, or rather the "individual" is buried naked covered with white cloths, like at birth.

In a Pakistani study, a significant association ($P = 0.024$) was found as to whether the donor's body mutilated during harvesting of organs, suggesting an obstacle further in the process of organ donation in this country Muslim [1]

Our survey carries an inventory on knowledge and perception can have the Moroccan population about organ donation, it will be renewed at the end of a set of awareness, training and communications for the general population. For the promotion of transplantation activity, multiply the campaigns of training and awareness in the media, in schools and universities to persuade the largest number of citizens on the importance and nobility of the gesture humanitarian, to turn them into actual donors

Conclusion

Kidney transplantation is primarily a social project, built on a foundation of generosity and solidarity, to save lives and it cannot be done without the need don. Le donated organs continues to rise due to the prevalence of chronic kidney disease. In Morocco, there is a great disparity between the need for organ donation and transplants available

This can be explained by several factors: - Lack of information for patients and their families- The lack of a national donation promotion plan and transplantation organes- The days of sensitization, which are limited to one or two days a year (the World kidney day held every second Thursday of March and the World day of donation and transplantation which takes place on 17 October of each year). These sensitization should be constantly aware of place throughout the year, taking the example of the Biomedicine Agency's activities

References

1. Hamouda Ben C, Hamida M, Benzarti N, Zouari Mr, Hebil B. Organ and Tunisian population, attitude and opinion Presse Med. 2010; 39:e11-6. <https://www.sciencedirect.com/science/article/pii/S0755498209003510>
2. EL Shoubaki H, Bener A. Public knowledge and attitudes toward organ donation and Transplantation: across-cultural study, Transplantation Proceedings. 2005; 37(5):1993-7.
3. Knowledge, attitude and reservations of medical students about organ transplantation: results of a survey during the first year of study]. Laederach-Hofmann K¹, Gerster BI. Schweiz Med Wochenschr.1998; 128(47):1840-9.
4. Afzal Aghaee M, Dehghani M, Sadeghi M, Khaleghi E. Awareness of Religious Leaders' Fatwa and Willingness to Donate Organ. 7TInt J Organ; Med.7T Transplant. 2015; 6(4):158-64. Epub 2015 Nov. 1.
5. Perception gift of organs after death brain by Moroccan

- students, Hajar El Assas, wd.fmpm.uca.ma> Library> Theses> year htm> these197-16
6. Ben Ammar MS. Organ and Islam: a climate seeking reluctance, *Ethics, Health*, 2004; 1:211-5.
 7. Bazin C, Koissy S, Malet J. Contribution to the debate on organ donation in La France. *Research and solidarity*, 2009. www.france-adot.org/images/pj/283p1_Synthese-Contribution-R&S-Don-dOrganes.pdf
 8. Saleem T, Ishaque S, Habib N, Hussain SS, Jawed A, Ali Khan A. *et al.* Knowledge, attitudes and practices survey is organ donation has selected Among adult population of Pakistan. *BMC Med Ethics*, 2009; 10:5.
 9. Figueroa CA Mesfum, Acton NT, Kunst AE. Medical students' knowledge and attitudes toward organ donation: results of a Dutch survey. *Transplant Proc*, 2013; 45:2093e7.
 10. Niang A, Makhtar Leye M, Dione L, Fary Ka EH, Tall Dia A. *et al.* Perception Kidney donation Senegal and potential donors. *Nephrol Ther*, 2012; 8:468-71.
 11. Nisreen Feroz, Ali Amal, Qureshi Basmah, Naser Jilani, Nosheen Zehra. Knowledge and ethical perception regarding organ donation among medical students 7TBMC *Ethics7T2T Med*, 2013, 14:38.
 12. Ramadurg UY, Gupta A. Impact of an educational action is Increasing the knowledge and changing the attitudes and beliefs towards organ donation among medical students. *J Clin Diagn Res*, 2014; 8:JC05-7.
 13. Younan F, Stephan A. Survey of Lebanese public opinion around the donation and organ transplantation, 2006. www.nootdt.org