

Knowledge and Attitudes toward Organ Donation in Young Physicians in France

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Abstract

Introduction: Despite the many information campaigns carried out to promote organ donation, the knowledge level of young physicians remains poorly studied. The objective of this study was to assess the level of knowledge on organ donation of young French physicians.

Material and Methods: A national self-questionnaire was sent to young physicians practicing specialities directly involved in organ donation in France. People were surveyed about their characteristics, knowledge and attitudes towards organ donation.

Results: A total of 170 respondents answered the questionnaire, of which 74.7% (n = 127) were residents and 18.7% (n = 32) were senior physicians. 82.4% (n = 140) felt they had received incomplete information and would be insufficient to inform the general population. 22.4% (n = 38) thought that it was legal to take organs from a patient who was opposed to this idea during his lifetime if his family wanted it. 81% (n = 155) of the participants were interested by an event on the topic of the organ donation.

Conclusion: This study has identified a lack of information of the young physicians directly involved in organ donation. Better information on donation, harvesting and transplantation, as well as family management training, could be done.

Keywords: Knowledge; Attitudes; Organ Donation

Introduction

The shortage of organs is a major international public health problem. In the world, 119,873 solid organs reported to be transplanted in 2014 which still represents inferior or equal to 10% of global needs [1]. It constitutes a major goal of World Health Organization (WHO). Thus, a lot of money and investments are made to improve the donation. Recently a new decree in France with a communication plan of the Biomedicine Agency (ABM) approved from the government was published to ease the refusal possibility in order to let the fewest “unknown” responses while there is an opportunity [2]. Despite the many information campaigns carried out to promote organ donation, including this recent communication plan of the Biomedicine Agency following the decree on the refusal expression terms of organ donation after the death, the level knowledge of young physicians remains poorly studied. A lack of knowledge could constitute a medical failure to explain to the families. To date no published data are available in France. The objective of this study was to assess the level of knowledge regarding the new decree on organ donation of young French physicians.

Methods

We conducted a prospective questionnaire-based survey. A multidisciplinary group of study was made up by young physicians practicing specialities directly involved in organ donation in France. The group elaborated a questionnaire to collect the pertinent information from the young physicians about three major topics: their characteristics (level, speciality, age, sex, city of exercise), their knowledge (awareness of the recent release of a new decree on organ donation with its issues, if they estimate that they have had full information, if they ever witnessed transplantation, knowledge about contra indications, refusal modes) and their opinion towards organ donation (opinion on the principle of presumed consent, concern about conflict situations or resentment with families, if they think that the family should be involved in the decision of organ donation, if they were organ donor themselves, their religious current and the influence on the choice, agreement with the donation of organs for a member of their family, if they encourage people around them to be potentially donor). The questionnaire was completed with their willing of participation or learning day on this topic. The questionnaire was tested by another group of physicians. The form is available in supplementary materials. The questionnaire was approved and registered with the National Commission of Informatics and Liberties under the reference 2030028v0. The questionnaire is available in the supplementary materials.

The questionnaire was sent to young French physicians practicing specialities directly involved in organ donation through the websites and by e-mails through a nationwide network comprising on a voluntary basis of AJAR (Association of Young Anaesthesiologists-Intensivists) and SFT Juniors (Junior Commission of the French Transplantation Society). The specialities concerned were the Intensivists, Nephrologists and Surgeons Urologists. We sent follow-up e-mails after 1 month and on social networks. Data were collected between January 2017 and March 2017.

We took to assess the correlation with other indicators of general attitude towards organ donation. The results were subject to statistical analysis, in which the arithmetic mean and standard deviation were calculated for measurable properties, whereas quantity and percentage distribution was calculated for non-measurable ones. The Student t test was used to compare the selected groups regarding measurable properties, and the Chi-2 test for independence, regarding the qualitative ones. All tests of hypothesis were 2-sided and conducted at significance level 0.05. A multivariate logistic regression was finally fitted to the data to ascertain which characteristics were independently associated with the main endpoint. Only the statistically significant characteristics (p < 0.05) were included in the final model. For an analysis of regional variations, we compared the different cities. Odds ratios (OR) with 95% confidence intervals were calculated. Analyses were performed using R (3.4.1 version). A multiple imputation was done if missing data exceed 10%.

Results

From 23th January 2017 to 23th March 2017, a total of 170 respondents answered the questionnaire. Among the responders, 74.7% (n = 127) were residents and 18.7% (n = 32) were clinic managers or specialist assistants. Responders were mainly intensivists 56.5% (n = 96), 22.4% (n = 38) were Nephrologists and 16.5% (n = 28) were Surgeons Urologists. 75.4% (n = 126) has already assisted to a PMO and 79.0% (n = 132) has already assisted to a transplantation. None questionnaire was excluded. There were no missing data. No imputation was needed. The characteristics of responders are presented in table 1.

Total		170
Status (%)		
Resident	127	(74.7)
Clinic managers/specialist assistants	32	(18.7)
Others		6 (3.5)
Medical student		3 (1.8)
Nurse		2 (1.2)
Age (mean (sd))	28.13	(2.98)
Sex = Female (%)	95	(55.9)
Speciality (%)		
Intensivist	96	(56.5)
Nephrologist	38	(22.4)
Surgeon urologist	28	(16.5)
Others		6 (3.5)
Pediatrician		1 (0.6)
Lung specialist		1 (0.6)
Has already assisted at an organ donation procedure (%)	126	(75.4)
Has already assisted at a surgical transplantation (%)	132	(79.0)

Table 1: Characteristics of the participants.

Knowledge about the new decree

88.2% (n = 150) of the participants were aware of the recent release of the new decree, but 82.4% (n = 140) felt that they had received incomplete information about its content and 72.4% (n = 123) felt that the recent communication plan of the ABM was insufficient. 51.2% (n = 87) of the participants felt that the impact of the new decree on the number of donors was uncertain. 22.4% (n = 38) thought that it was legal to take organs from a patient who was opposed to this idea during his lifetime if his family wanted it.

22.4% (n = 38) thought it would be legal to harvest organs from a patient who was opposed in his lifetime to this idea if his family so desired, which is in contradiction with current French laws. The opinion of the participants on the new decree is presented in table 2.

Variables	n (%)
Aware of the new decree (%)	150 (88.2)
Think that information to medical staff is sufficient (%)	30 (17.6)
Think that communication to public is sufficient (%)	47 (27.6)
Think that it is legal to take organs from an opposite patient during his lifetime (%)	38 (22.4)
Think that the decree will not increase the number of organ donors (%)	87 (51.2)

Table 2: Opinion of the participants on the new decree.

Opinion on organ donation

8.2% (n = 14) were against the principle of presumed consent and 4.2% (n = 7) were not themselves organ donors, including 4 Intensivists. The reasons for this refusal were religious for 2 of them, related to bad professional experience for 4 others and the attribution of the organs not enough transparent for another. 26.5% (n = 45) thought that the family should not be involved in the decision to donate organs.

Discussion

In France, by 2015, 21,378 patients were waiting for a donation for 5746 transplants [3]. It constitutes a major goal of World Health Organization (WHO). Thus, a lot of money and investments are made to improve the donation. Recently a new decree in France with a communication plan of the Biomedicine Agency (<https://www.dondorganes.fr/>) approved from the government was published to ease the refusal possibility in order to let the fewest “unknown” responses while there is an opportunity with the help of partial organ donation and an online register for opposition to organ donation (<https://www.registrenationaldesrefus.fr/>) [2]. Our study is the first national and French study including every young physicians practicing specialities directly involved in organ donation in France. Although the population surveyed was quite aware of transplantation (most of them has already assisted to a PMO or a transplantation), a certain amount of young physicians was against the principle of donation presumed consent and did not agree for their own organ donation. The reasons for this refusal were not significantly related to the characteristics of the participants but could be more related to a lack of knowledge or a bad professional or personal experience. The study was adapted for French legislation and French medical system in particular the management of organ donation. In France, Intensivists are Anaesthesiologists-Intensivists or an organ specialist who is doing a specialisation in intensive care. The donation is managing by them for the announce of brain death or cardiac arrest death then the research of non-opposition to organ donation with the optional help of a coordination team. Indeed, in France, organ donation is based on presumed consent. Looking for non-opposition to organ donation should be anticipated and noticed to not loss potential donor. If the physicians do not think about searching the brain death or the non-opposition in these cases, the probability to lose organs is high. The reasons could be a lack of knowledge and experience but also a reluctance of the concept of organ donation of the physicians. The knowledge was difficult to evaluate in the absence of validated questionnaire but many studies suggest that health care professionals with a higher education level are more likely to hold an organ donor card and also feel more comfortable in approaching relatives of potential organ donors [4-7].

In general population, higher medical education is associated with greater knowledge about organ donation and a more positive attitude toward organ donation [8-10]. But also in health care professionals with a higher education level are more likely to hold an organ

donor card and also feel more comfortable in approaching relatives of potential organ donors [9,11,12]. A French study showed that significant differences exist among ICU clinician's perceptions of organ donation which affect family experience and consent rates deserves investigation [13]. Educating health care professionals about the organ donation process appears to be an important factor in maximizing the benefits from the limited organ donor pool [14,15]. Interventional studies showed efficiency to change medical students opinion towards organ donation [16,17]. Like financial incitation existing in some countries, we could even imagine a financial incitation among medical staff [18,19]. Our study support that a better information of the young physicians could be done in order to improve organ donation management among young physicians. After our study, we have organized an international event to learn about and to debate on organ donation in order to sensitize the young physicians which was successful [20].

The first limit of our study is the limited number of responses as we cannot confirm that our study is representative of all physicians. Nevertheless, it included the physicians directly concerned by the organ donation and transplantation. So, it could overestimate the reluctance or the ignorance of the decree and the guidelines on the topic. Secondly, even it was an anonymous questionnaire, some people could not respond because of their opinion or their reluctance about the topic of organ donation.

More studies are needed to evaluate the benefit of a better teaching about the management on organ donation.

Conclusion

This study has identified factors potentially responsible for limiting the number of donors in young physicians - specialists directly involved in organ donation. Better information on donation, harvesting and transplantation, as well as family management training, could limit these factors.

Supplementary Materials

1: The questionnaire

You are?*

Mark only one oval.

INTERNAL

CCA/ASSISTANT

PH, MCU, PU

External

IADE

FDI

Other

1. Your age?*

2. You are?*

Mark only one oval.

A woman

A man

3. Your speciality?*

Mark only one oval.

Anesthesiology Thoracic surgery

Digestive Surgery Heart surgery

Ophthalmic surgery

Urological Surgery

Pediatric surgery

Nephrology pneumonology

Cardiology Hepato-gastroenterology

Ophthalmology

Pediatrics

Other

4. Your City of Exercise?

5. Are you aware of the recent release of a new decree on organ donation?*

Mark only one oval.

YES

NO

6. Do you feel that you have received full information about its content?*

Mark only one oval.

YES

NO

7. Have you ever witnessed a procedure for setting up the levy organ?*

Mark only one oval.

YES

NO

8. Have you ever been involved in an organ transplant?*

Mark only one oval.

YES

NO

9. According to you, the communication plan of the Biomedicine Agency Will it provide sufficient information to the general population?*

Mark only one oval.

YES

NO

10. Which of the following statements contraindicate organ donation?*

Tick all that apply.

Patient registration in the National Rejection

Register Written expression of patient refusal

Oral expression of the patient while he was alive Refusal of the family

Other

11. Is it legal to take organs from an opposite patient during his lifetime? This idea if his family wants it?*

Mark only one oval.

YES

NO

12. What are the issues raised by this new decree? *

Tick all that apply.

Partial donation of organs (choice of organ (s) to be given)

Donation (possibility of receiving compensation) Non-anonymous gift (possibility of gratification/follow-up of the person donor/recipient)

On-line refusal register for an optimized collection (less doubt, less loss)

Do not know

Other

13. The objective of this new decree is to increase the pool of donors died. What do you think of its real impact?*

Mark only one oval.

Increased number of donors

Reduction in the number of donors

Number of stable donors

14. What is your opinion on the principle of presumed consent?*

Mark only one oval.

Rather for

Rather Indifferent

15. Are you concerned about conflict situations or resentment with families? *

Mark only one oval.

YES

NO

16. In your opinion, should the family be involved in the decision of organ donation?*

Mark only one oval.

YES

NO

17. Are you interested in an event dedicated to organ donation?*

Mark only one oval.

Yes but not more than one evening

OK for 2 nights max

Yes, even a whole day, rather a Friday

Yes, even a whole day, rather a Saturday

No

18. As part of an organ donation event, what topics Would you like to see?

19. Are you an organ donor?

Mark only one oval.

YES

NO

Without opinion

20. If not, is it due to

Tick all that apply.

To your religion?

Has a badly lived professional experience of transplantation?

Has a badly lived professional experience of the donation procedure?

Other

21. Your religion?*

Mark only one oval.

Christian

Muslim

Jewish

Atheist

Agnostic

Not willing to answer

Other

22. Would you agree with the donation of organs for a member of your close family?*

Mark only one oval.

YES

NO

23. Do you encourage people around you to be potentially donor?

Mark only one oval.

YES

NO

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