

Psychosocial Profile of the Attitude Toward Family Organ Donation in People Older Than 65 Years

Beatriz Febrero^{a,b,c}, María Iniesta^{a,b,c}, Javier Almela-Baeza^{d*}, Inmaculada Ros-Madrid^b, Laura Martínez-Alarcón^{a,b,c}, and Pablo Ramírez^{a,b,c}

^aGeneral Surgery Service, Virgen de la Arrixaca University Hospital, Murcia, Spain; ^bInstituto Murciano de Investigaciones Biosanitarias IMIB-Arixaca, Murcia, Spain; ^cDepartment of Surgery, Pediatrics, Gynecology and Obstetrics, School of Medicine, University of Murcia, Murcia, Spain; and ^dFaculty of Communication and Documentation, University of Murcia, Murcia, Spain

ABSTRACT

Background. The population over 65 years of age is key in the decision to donate organs in its different aspects. We sought to analyze the attitude toward organ donation from a relative among people over 65 years of age and to determine the psychosocial variables that may influence their attitude.

Methods. The study population consisted of citizens over 65 years of age. A representative sample was obtained in southeastern Spain (N = 420). A questionnaire about attitudes toward organ donation and transplantation (ODT) was used. Several psycho-social variables were also taken into account. Statistical analysis included the χ^2 test and multivariate analysis.

Results. The completion rate was 84% (n = 351). The favorable attitude toward organ donation from a relative was 53% (n = 184). The univariate analysis showed the influence of information variables, conversations on the subject with family and friends, meeting a donor, acceptance of cremation and autopsy, not being afraid of scars after donation, and carrying out prosocial activities ($P < .05$). In the multivariate analysis, the desire to carry out activities related to the ODT (odds ratio [OR] 2.06) and the favorable opinion of the partner (OR 3.72) persisted.

Conclusions. The attitude of older people toward organ donation from a relative is unfavorable. This attitude is influenced by various factors, including dialogue with family and friends and the fact that the partner has a favorable opinion regarding this issue. It is important to carry out training activities on ODT in this group in order not to have a negative impact on organ donation rates in the coming years.

THE population over 65 years of age is key in the process of organ donation and transplantation (ODT). The continuous demand for transplants and the increase in life expectancy make it necessary to focus our attention on this age group [1,2]. However, some studies show that the older the age, the lower the probability of organ donation [3]. In addition, the attitude toward organ donation from a relative can be even more unfavorable with respect to the attitude toward the donation of one's own organs, and family refusal toward donation can lead to the loss of one in 4 to 5 potential donors detected [4]. The donation decision-making process after the recent death of a family member is a difficult experience that requires great interpersonal interaction and is influenced by several factors [5]. For this reason, the analysis of the attitude toward organ donation from a relative in this age group and knowing the factors that may

influence their decision may be crucial in order not to reduce the number of donors. The objectives are to analyze the attitude toward organ donation from a relative among people over 65 years of age and to determine the psychosocial variables that may influence their attitude.

MATERIAL AND METHODS

An observational sociologic study was used. A multicenter study was conducted with a representative sample of people over 65 years of age, stratified by sex and geographic location in southeastern Spain

*Address correspondence to Javier Almela Baeza, Crta. Madrid- Cartagena, s/n 30120, El Palmar (Murcia), Spain. E-mail: javier.almela@um.es

Table 1. Psychosocial Profile of the Attitude Toward Organ Donation From a Relative in People Over 65 Years of Age

Variables	Univariate Analysis			Multivariate Analysis			
	In Favor	Not in Favor	P Value	P Value	OR	95% CI	
	n = 184 (53%)	n = 167 (47%)				Inferior	n = 184 (53%)
Male sex (n = 161, 46%)	87 (54%)	74 (46%)	.57	-	-	-	-
Being married or with a partner (n = 269, 77%)	141 (52%)	128 (48%)	1	-	-	-	-
Catholic religion (n = 331, 94%)	170 (51%)	161 (49%)	.262	-	-	-	-
Television as a source of information (n = 287, 82%)	160 (56%)	127 (44%)	.008	-	-	-	-
Press as a source of information (n = 91, 26%)	62 (68%)	29 (32%)	< .001	-	-	-	-
Social media as a source of information (n = 14, 4%)	11 (79%)	3 (21%)	.046	-	-	-	-
Internet as a source of information (n = 18, 5%)	15 (83%)	3 (17%)	.007	-	-	-	-
Friends as a source of information (n = 60, 17%)	49 (82%)	11 (18%)	< .001	-	-	-	-
Family as a source of information (n = 91, 26%)	69 (76%)	22 (24%)	< .001	-	-	-	-
Favorable partner opinion of ODT (n = 125, 36%)	96 (77%)	29 (23%)	< .001	.000	3.727	2.079	6.681
Discussed ODT topic with his family (n = 115, 33%)	86 (75%)	29 (25%)	< .001	-	-	-	-
Discussed ODT topic with friends (n = 75, 21%)	59 (79%)	16 (21%)	< .001	-	-	-	-
Family knows the opinion of ODT (n = 130, 37%)	94 (72%)	36 (28%)	< .001	-	-	-	-
Knows brain death concept (n = 224, 64%)	113 (50%)	111 (50%)	.325	-	-	-	-
Knows a donor (n = 72, 20%)	49 (68%)	23 (32%)	.003	-	-	-	-
Knows a transplanted (n = 145, 41%)	76 (52%)	69 (48%)	.998	-	-	-	-
Received a talk about ODT (n = 19, 5%)	16 (84%)	3 (16%)	.004	-	-	-	-
Acceptance of cremation (n = 108, 30.5%)	71 (66%)	37 (34%)	.002	-	-	-	-
Acceptance of autopsy (n = 201, 57%)	130 (65%)	71 (35%)	< .001	-	-	-	-
Concern about scarring/mutilation (n = 41, 12%)	12 (29%)	29 (71%)	.007	-	-	-	-
Being a regular blood donor (n = 30, 9%)	21 (70%)	9 (30%)	< .001	-	-	-	-
Carry out prosocial activities (n = 126, 36%)	78 (62%)	48 (38%)	.019	-	-	-	-
Would like to receive a talk about ODT (n = 80, 23%)	50 (63%)	30 (37%)	.040	-	-	-	-
Would like to do an activity about ODT (n = 58, 17%)	39 (67%)	19 (33%)	.013	.048	2.066	1.005	4.246

ODT, organ donation and transplantation; OR, odds ratio.

(N = 420). The appraisal instrument was a validated questionnaire of attitude toward ODT. The questionnaire was completed anonymously and self-administered.

Statistical Analysis

The data were stored in a database and analyzed using a statistical package. Descriptive statistical analysis was carried out; for the bivariate analysis, the Student's *t* and χ^2 tests were complemented by an analysis of remainders. Fisher's exact test was applied when the contingency tables had cells with an expected frequency of <5. Based on the significant variables of the bivariate analysis ($P < .05$), a multivariate analysis was applied.

RESULTS

The completion rate was 84% (n = 351). Favorable attitude toward ODT was 98% (n = 344) overall. Fifty-three percent of those surveyed were in favor of organ donation from a relative (n = 184), 23% against (n = 82), and 24% had doubts (n = 85). No differences were observed in relation to the socio-personal variables (age, sex, and marital status) or religion ($P > .05$). Differences were observed in the use of certain sources of information: television (56% vs 38%; $P = .008$), press (68% vs 47%; $P < .001$), social networks (79% vs 51%; $P = .046$), Internet

(83% vs 51%; $P = .007$), friends (82% vs 46%; $P < .001$), and family (76% vs 44%; $P < .001$). Regarding social interaction variables, differences were observed in terms of a favorable opinion of the partner (77% vs 37%; $P < .001$), having discussed the topic of ODT with their family (75% vs 42%; $P < .001$) and friends (79% vs 45%; $P < .001$) and that the family knew the respondent's opinion toward donation (72% vs 38%; $P < .01$). Differences were observed in those who previously knew a donor (68% vs 48%; $P = .003$). Ninety-five percent of those surveyed reported never having received a talk about ODT. Among those who had done so, there was a greater willingness to donate (84% vs 51%; $P = .004$). Regarding the manipulation of the body, differences were observed in relation to the attitude toward autopsy (65% vs 36%; $P < .001$) and cremation (66% vs 46%; $P = .002$), showing a more favorable attitude and about concern for body mutilation (56% vs 29%; $P = .007$), showing a more unfavorable attitude. In relation to prosocial activities, differences were observed between those who regularly performed them (62% vs 38%, $P = .019$) and among those who regularly donated blood (70% vs 30%, $P < .001$). The variables that persisted in the multivariate analysis were the desire to carry out activities related to ODT (odds ratio 2.06) and the favorable opinion of the partner toward organ donation (odds ratio 3.72) (Table 1).

DISCUSSION

The analysis of the data reflected a positive attitude of citizens >65 years of age toward ODT in general. However, when asked specifically about the willingness to donate organs from relatives, it fell by half. Therefore, it is important to analyze the variables that may have an influence on this attitude.

Previous studies have shown the influence of some variables on the attitude toward the donation of one's own organs [2,3]. In this case, despite the ignorance of the concept of brain death, the knowledge of this concept did not influence the predisposition toward organ donation from a relative, unlike other studies [3,6].

Most of those surveyed had not received a talk on this subject; however, 84% of those who had received it presented a favorable attitude. Some respondents showed interest in receiving talks and carrying out activities, allowing us to carry out initiatives focused on dissemination in the media and social networks [7,8]. In addition to the variables related to information on ODT, the variables that proved to be most influential were those of socio-family interaction, as shown by other studies [3,4,9]. Therefore, it is important to encourage dialogue with the family and that all family members know their opinions on the subject. In conclusion, the attitude of the elderly population toward organ donation from a relative is unfavorable. This attitude is influenced by various factors, including among them, the information received through different media, the dialogue with family and friends, and the fact that the partner has a favorable opinion. It is important to carry out training activities on ODT and take into account these influential factors in order not to have a negative impact on organ donation rates in the coming years.

DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

REFERENCES

- [1] Bodzin AS, Baker TB. Liver transplantation today: where we are now and where we are going. *Liver Transplantation* 2018;24:1470–5.
- [2] Xie X, Wu Q. Factors influencing organ donation in Fujian's Organ Procurement Organization: a retrospective study. *Clin Transplant* 2023;37:e14902.
- [3] Gross T, Martinoli S, Spagnoli G, Badia F, Malacrida R. Attitudes and behavior of young European adults towards the donation of organs - a call for better information. *Am J Transplant* 2001;1:74–81.
- [4] Martínez JM, López JS, Martín A, Martín MJ, Scandroglio B, Martín JM. Organ donation and family decision-making within the Spanish donation system. *Soc Sci Med* 2001;53:405–21.
- [5] Rafii F, Rahimi S. Organ donation decision in families with brain-dead patients: an evolutionary concept analysis. *Prof Case Manag* 2022;27:67–84.
- [6] Soylu D, Soylu A, Yüzbaşoğlu MF. Determination of the factors affecting organ donation: voluntary organ donors. *Transpl Immunol* 2022;72:101568.
- [7] Roca D, Escribano D, Franco-Martínez L, Contreras-Aguilar MD, Bernal LJ, Ceron JJ, et al. Evaluation of the effect of a live interview in journalism students on salivary stress biomarkers and conventional stress scales. *Int J Environ Res Public Health* 2022;19:1920.
- [8] Jiménez AM, Manzano AP, Arenas JZ. Young people, drugs, prevention, and ICTs. *Procedia Soc Behav Sci* 2014;132:398–404.
- [9] Ríos A, Febrero B, Martínez-Alarcón L, López-Navas A, Sánchez J, Guzman D, et al. Evaluation of attitudes toward living organ donation: a multicenter study of compulsory secondary school education teachers. *Transplant Proc* 2010;42:3106–8.