



## Organ Donation Related With Attitude Toward the Law of Presumed Consent: Spanish University Medical and Nursing Students Study

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**ABSTRACT**

**Introduction.** Information provided by health care professionals is crucial to create a climate of social opinion. This is important in organ donation and transplantation (ODT), where the participation of the general public is essential to obtain organs.

**Objective.** To determine the attitude toward the Law of Presumed Consent (LPC) among Spanish university students and to analyze their relation with attitude toward ODT.

**Methods.** and design. The type of study was a sociologic, multicenter, observational study. The population included medical and nursing students in Spanish universities. Database of Collaborative International Donor Project was used stratified by geographic area and academic course. A validated questionnaire (Collaborative International Donor Project, organ donation and transplantation questionnaire in Spanish [PCID-DTO-RIOS]) was self-administered and completed anonymously. A sample of 9598 medical and 10,566 nursing students was analyzed (99% confidence and precision of  $\pm 1\%$ ) and stratified by geographic area and year of study.

**Results.** Completion rate was 90%. Regarding attitude toward LPC, 66% of the students were against the law, whereas 34% accepted it. Of the students surveyed, 9% considered the law as a gesture of solidarity, 25% as an effective way of not wasting organs, 48% as an abuse of power, and 18% as offenses against the family. Those students who were in favor of LPC also had a more favorable attitude toward ODT (86% vs 76%;  $P < .001$ ).

Comparing groups, nursing students were less in favor of LPC than medical students (32% vs 36%;  $P < .000$ ).

**Conclusion.** Sixty-six percent of Spanish university medical and nursing students were against the LPC. The favorable attitude toward ODT is associated with considering the law as a gesture of solidarity or as an effective way of not wasting organs.

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**I**T should be noted that the organ donor process is multifarious involving different aspects, and in this regard health care professionals play a fundamental role in its development. Information provided by these professionals is crucial to create a climate of social opinion. Therefore, the knowledge acquired about organ donation and transplantation (ODT) during a university education decisively influences the information professionals transmit [1,2]. This is important in ODT, where the participation of the general public is essential to obtain organs [3,4].

Although Spain has a law dealing with informed consent, it has never been applied because of possible negative consequences, which could lead to adverse attitudes in the population. However, the attitude of health care professionals regarding the Law of Presumed Consent (LPC) will decisively affect the information they transmit. Therefore, the objectives of this study were as follows: (1) to determine the attitude toward the LPC among Spanish university students and (2) to analyze how the attitude toward the law relates to the attitude toward ODT.

**METHODS AND DESIGN**

Our study was a sociologic, multicenter, and observational study. The population included medical and nursing students in Spanish universities collected from the database of the Collaborative International Donor Project [4–6] and stratified by geographic area and academic year. The sample size consisted of 2 groups who were

selected according to degree: a sample of 9598 medical and 10,566 nursing students (99% confidence; precision of  $\pm 1\%$ ).

The study used the validated attitudinal questionnaire for ODT (Collaborative International Donor Project, organ donation and transplantation questionnaire in Spanish [PCID-DTO-RIOS]) [4,7,8]. This questionnaire includes questions distributed in 4 subscales or validated factors in the Spanish population, presenting a total explained variance of 63.203% and a Cronbach  $\alpha$  reliability coefficient of 0.834. After the project was approved at each university, the questionnaire was distributed in the selected courses and all were supervised by a professor from each of the universities collaborating with the project. The questionnaire was self-administered and completed anonymously. Before distribution of the questionnaire, the project was explained, and it was indicated that the participation in the project was voluntary with verbal consent. A descriptive statistic was performed, and  $t$  tests,  $\chi^2$  tests, and Fisher exact tests were performed.  $P$  values less than .05 were considered statistically significant.

**RESULTS**

The completion rate was 90%. Regarding the LPC, 66% ( $n = 11,748$ ) of students were against the law, whereas 34% ( $n = 6038$ ) accepted it (Table 1). Of the students surveyed, 9% considered the law a gesture of solidarity, 25% as an effective way of not wasting organs, 48% as an abuse of power, and 18% as offenses against the family.

The attitude toward the donation of one's own organs did have an effect on attitude toward LPC. Those who would

**Table 1. Variables Related to the Acceptance of the Law of Presumed Consent in Medical and Nursing Students**

Variables Related to Attitude Toward Presumed Consent			
	In Favor (n = 11,748; 66%)	Against (n = 6038; 34%)	P ( $\leq .05$ )
Socio-personal variables			
Age (21 $\pm$ 2 y)	21 $\pm$ 9 y	21 $\pm$ 7 y	.097
Sex	Men	Women	.000
Academic variables			
Academic y	Third/fourth	First	.000
Faculty	Medicine	Nursing	.000
Variables of attitude toward ODT			
Knowing a donor	Yes	No	.026
Knowing a transplant patient	Yes	No	.961
Organ needs covered	Yes	No	.011
Possibility of needing a transplant	Yes	No	.000
Attitude toward deceased donation	Yes	No	.001
Information about ODT	Good	Bad	.000
Interest in receiving an informative talk about ODT	Yes	Doubts	.000
Having received an informative talk about ODT	Yes	No	.000

Abbreviation: ODT, organ donation and transplantation.

donate their own organs were more in favor of LPC compared with those who were against it (86% in favor of law vs 76%;  $P < .001$ ). Also, those students who had received an informative talk about ODT were more in favor of LPC ( $P < .000$ ).

Comparing the 2 groups of students, nursing students were less in favor of LPC than medical students (32% vs 36%;  $P < .000$ ) (Table 1).

## DISCUSSION

The awareness of organ donation among health professionals is important at the time of transplant promotion. In this sense, training and sensitization of future professionals are fundamental because they will soon join health workers in active service and become a very important group who generates opinions regarding the attitudes toward ODT [7]. It has been argued that higher donation rates are associated with health workers' increased awareness of the issue.

Many developed countries face a chronic shortage of human organs for transplantation. Moving to an opt-out system can raise organ donation rates, helping to save and transform lives. Most European countries have adopted presumed consent legislation in which no explicit consent is required for a person to become a potential donor [9]. Spain, Austria, and Belgium have opted for a change in the law introducing presumed consent, whereby organs can be

used for transplantation after death unless individuals have stated a refusal to donate while alive. However, in some countries, the introduction of this policy has had a negative effect. Therefore, in Spain, this law (Law 30/79) has not been applied, given the negative experiences of other countries [10].

Medical and nursing students are important because they indirectly involve their family and can influence family decisions. In addition, if they are going to be future professionals, it is essential for them to provide accurate information, with simple and clear concepts that communicate with society in a concise way to prevent irrational social fears [11]. Health professionals play fundamental roles in affecting attitudes. A lack of information could cause a negative climate in our country, considering that 66% of the students in this study were against this law. Health care providers must focus on actual barriers to increasing donation rather than on presumed consent alone [12].

To conclude, LPC is not well accepted among Spanish university medical and nursing students. A favorable attitude toward ODT is associated with a consideration of LPC as a gesture of solidarity or as an effective way of not wasting organs.

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