An analysis of critical care staff’s attitudes to donation in a country with presumed-consent legislation

Context—Lack of knowledge and confidence among critical care staff in identifying potential donors and communicating with donor families may explain missed organ and tissue donations.

Objectives—To elucidate attitudes of critical care staff toward donation and their knowledge, involvement, and self-reported skills and confidence levels with donation-related tasks.

Methods—Between January 2004 and May 2006, Donor Action Foundation’s Hospital Attitude Survey was used to collect data from staff members in critical care units in our university hospital (study group) and 2 other Belgian university hospitals (control group). In total, 92 physicians, 433 nurses, and 26 other staff members participated.

Results—The 2 groups did not differ significantly with regard to donation-related attitudes. The study group had a significantly lower perception of the public’s approval of organ donation than did the control group ($P < .001$). Nurses reported significantly less involvement than did physicians ($P < .001$) in caring for potential donors, communicating severe brain damage, explaining brain death, requesting donation, and contacting procurement staff. Probably because of previous training, physicians in the study group reported less need for additional training on donation-related issues than did control physicians. However, compared with physicians, nurses in the study group requested significantly more training on a number of donation tasks. Nurses with more than 5 years of critical care experience were consistently more confident with donation-related tasks.

Conclusion—Support rates for donation are high overall, and previous training is associated with improved attitudes and decreased educational needs. Educational efforts tailor-made for nurses should increase nurses’ confidence levels when confronted with potential donors and their next of kin. (Progress in Transplantation. 2008;18:173-178)
reasons for losing potential donors has become a priority in our strategy to increase organ and tissue donation in our own institution and in affiliated donor hospitals.

The objective of this study was to elucidate attitudes of critical care staff toward donation and their knowledge, involvement, self-reported skills and confidence levels with donation-related tasks. We hypothesize that a lack of knowledge and confidence among critical care staff in identifying potential donors and communicating with donor families may explain missed donations. Furthermore, physicians and nurses were compared with regard to attitudes and differences in self-reported skills related to years of experience in the field of donation.

**Materials and Methods**

To measure current strengths and weaknesses in the field of organ and tissue donation, we decided to use the Donor Action Foundation’s (DA) Diagnostic Review method.1 The DA Diagnostic Review has 3 components: a Medical Record Review (MRR) to measure gaps between potential and actual donors and indicate where, when, and how potential donors are missed in the process, a Hospital Attitude Survey (HAS), and a Web-based DA System Database to enter MRR and HAS records, analyze them, and report on the findings.

The DA HAS is a simple, anonymous questionnaire administered to all hospital staff (medical, nursing, auxiliary, administrative staff) who may come in contact with either potential donors or their relatives. The survey was codeveloped by DA Management and clinical psychologists of the Department of Educational Development and Educational Research and the Skills Lab, Faculty of Health, Medicine and Life Sciences, University of Maastricht, The Netherlands. The survey method was validated by 11 participating pilot university hospitals in Canada, The Netherlands, Spain and the United Kingdom between 1995 and 1997. After a rollout of the DA program in more than 15 countries worldwide since, not less than 60,889 HAS records were entered into the DA System Database for further analysis between January 2000 and May 2008. To ensure a correct translation of the original English version, the DA System Database has a built-in translation module. Meticulously following the original English version of the survey, national DA working groups have translated the original version into Finnish, Norwegian, Swedish, Dutch, German, French, Italian, Polish, Hungarian, Spanish, and Japanese. As the DA program continues its international rollout, more translations of the HAS are expected to be available by the end of 2008.

DA’s MRR and HAS process and the System Database are compliant with Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data and the Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (directive on privacy and electronic communications). Additionally, the DA System Database has been approved by the Commission Nationale de l’Informatique et des Libertés, the independent French administrative authority whose mission is to ensure that data privacy law is applied to the collection, storage, and use of personal data.

Before implementing the DA program and its diagnostic review method in Belgium, a national DA working group, including ethicists from the National Medical Council (Orde van Geneesheren), approved the program. Individual hospitals’ ethics committees thereafter confirmed their support, our own hospital’s Quality Council included.

The survey focuses on 6 different issues: attitudes toward donation, knowledge about transplantation-and donation-related issues, involvement in donation activities, self-reported skills related to donation, satisfaction with services provided by the transplant coordinator, and needs for further training about donation-related issues. Hospital staff are asked how much education they have received on donation-related matters, how much more education they think they need, in what format and the most convenient time of day. The process relies on cooperation and support from the medical and nursing directors of the targeted departments, who need to be well informed about the DA program, the purpose of the HAS, and its relevance to the staff concerned. As the study presented is part of a larger project at the St Luc Hospital of the Université Catholique de Louvain investigating the potential for organ and tissue donation in this hospital and its satellite donor hospitals, MRR data will be presented in a separate analysis.

A total of 550 survey forms were collected from 29 targeted care units in 3 university hospitals (study group: St Luc hospital, n = 199; control group: aggregated data from 2 teaching hospitals, one located in the French-speaking part, the other in the Flemish-speaking part of the country, n = 351). Questionnaires were collected in these 3 institutions between January 2004 and May 2006. The total study cohort consisted of 92 physicians (16.7%), 432 nurses (78.5%) and 26 other staff members (eg, social workers, pastors; 4.7%). The 2 groups did not differ with regard to sex (29.7% male, 70.3% female), age (68.1% aged 25 to 44 years), or experience (<1 year, 5.8%; 1-5 years, 21.2%; 6-10 years, 19.5%; >10 years, 53.3%), although physicians were slightly underrepresented in the study group (11.1%) compared with the control group (19.9%).

The European Donor Hospital Education Program (EDHEP), a specific educational program dealing with
Communicating brain death and obtaining consent for organ and tissue donation has been in place since 1993 in the study group hospital, but participation in the course has always been voluntary.10,11 Data were entered to the DA System Database for further analysis. Statistical differences between groups (χ² test or the Fisher exact test where appropriate) were calculated with the help of StatView, version 5.01 (SAS Institute Inc, Chicago, Illinois).

Results

Attitudes Toward Donation

The survey results did not show any significant differences with regard to reported attitudes toward donation: mean general support of donation: 96%, willingness to donate own organs: 92.7%, willingness to donate own tissues: 83%.

Significantly more physicians in the study group reported having told their family of their wishes to donate than did their colleagues in the control group (72.7% vs 54.3%; \( P < .001 \)). On average, 94.7% of all respondents were willing to donate organs from their adult next of kin; however, only 21.2% were willing to donate organs from their own children. Whereas 18.2% of physicians in the study group were willing to donate their children’s organs, this figure decreased to only 8.2% among nurses in the study group (\( P < .001 \)).

Respondents in the study group, on the other hand, were significantly more convinced that donation helps families cope with grief (88.3% vs 60.2%; \( P < .001 \)). Interestingly, nurses in the study group answered more positively (63.9%) than did nurses in the control group (48.2%; \( P < .001 \)) when asked about what they considered to be the appropriate time to bring up the subject of donation.

The study group was more conservative than the control group with regard to the timing of involving transplant coordinators in response to a potential donor referral (Figure 1). Both physicians and nurses in the study group preferred to wait until after the donation request, whereas in the control group, most respondents had no problems with a transplant coordinator being involved even before the donation request. In Belgium, families tend to be approached about donation almost exclusively by the critical care physician who is treating the potential donor.

Knowledge

Physicians and nurses in the study group had a significantly lower perception of the percentage of the Belgian population that approves of organ donation compared with the control group: only 15.6% estimated that more than 50% of the population approves, compared with 38.7% of respondents in the control
group (P < .001; Figure 2). Both groups had a low perception of the estimated percentage of patients on the waiting list who would receive a transplant. Whereas Eurotransplant figures indicate that 739 (90.3%) of the 818 Belgian patients added to the waiting list in 2004 received a transplant within 1 year, at least 76.7% of all respondents estimated this figure to be lower than 30%.

Involvement

In both groups, reported involvement in caring for a potential donor was significantly lower, on average, for nurses (36.4%) than for physicians (67.4%, P < .001).

A similar trend could be observed with regard to reported involvement in communicating severe brain damage (62.8% for physicians vs 37.1% for nurses, P < .001), explaining brain death (53.2% for physicians vs 25.3% for nurses, P < .001), requesting organ donation (39.1% for physicians vs 9.3% for nurses, P < .001), and contacting a transplant coordinator (44.6% for physicians vs 11.8% for nurses, P < .001).

Skills

The study and control groups did not differ significantly with regard to self-reported skills. However, of all staff reportedly involved, nurses once again felt less comfortable than physicians with regard to notifying a transplant coordinator or appropriate person (12% vs 2.6%, P < .001), explaining brain death to family (51% vs 13.9%, P < .001), introducing the subject of donation (54.1% vs 23.7%, P < .001), and asking a family to make a decision (65.7% vs 36.4%, P < .001).

Satisfaction With Services Provided by Transplant Coordinator

No significant differences were observed between the 2 groups or between physicians and nurses with regard to satisfaction with services provided by the transplant coordinator. Most respondents felt satisfied with the transplant coordinator’s coordinating efforts, dealing with the clinical aspects of the donation process, requesting consent, or hospital education initiatives.

Educational Needs

Maybe the most eye-catching outcomes of this survey were the self-reported needs for further education on donation-related issues among hospital staff. Compared with physicians in the control group, those in the study group had received relatively more training on issues like brain death (40.9% vs 21.4%, P = .03) and making the donation request (36.4% vs 21.4%, P = .05). On the other hand, requests for additional training were significantly higher among nurses than physicians in the study group on issues like clinical management of the donor (51.9% vs 31.8%, P = .004), coordinating the donation process (53.8% vs 22.7%, P < .001), family grief counseling (54.4% vs 27.3%, P = .02), brain death (40.5% vs 27.3%, P = .07), making the donation request (52.5% vs 27.3%, P < .001), family issues in decision making (54.4% vs 36.4%, P = .01), and communication skills (33.5% vs 18.2%, P = .02).

Effect of Experience on Confidence Levels

Although the difference was not statistically significant, aggregated data from the 3 hospitals showed
a consistent trend of higher confidence levels among nurses with more than 5 years of critical care experience compared with nurses with less experience and with regard to explaining brain death (50.7% vs 40.3%), introducing the subject of donation (48.9% vs 34.2%), asking family to make a decision (36% vs 23%), and comforting the patient’s next of kin (71.5% vs 62.5%).

Discussion
The study group differed positively from the control group with regard to the attitudes of all staff toward donation and the educational needs of medical staff. For years, both nurses and physicians of the study group had been offered the EDHEP as training in family care and communication. Results of a recent study on the effects of the EDHEP indicate that in critical care units with a high rate of participation in the EDHEP, subjects were significantly more satisfied about the teamwork relating to death and donation, with the donation request made more often by more than 1 team member. The program contributed significantly to working in teams and to team support in critical care units.12

Previous participation in EDHEP training courses may have contributed largely to the study group’s seeming to be more convinced that donation helps families cope with grief and feeling confident with the appropriate time to bring up the subject of donation.

The observation that in the study group the transplant coordinator preferentially is involved quite lately in the donation process also can be attributed to advanced training of the staff involved and the resulting confidence levels. The presence of a staff member confident with discussing donation can increase donation rates dramatically.13

One should take into account, however, that in this study nurses in both groups felt less comfortable than physicians did in explaining brain death, introducing the subject of donation, and asking the family to make a decision about organ or tissue donation. This uncomfortableness of nurses leads to a typical catch-22 situation: involving the transplant coordinator earlier in the donation process could provide a substantial professional support to critical care staff when approaching the donor family, but the presence of this transplant coordinator may limit staff’s involvement and it is more likely that critical care staff will distance themselves from the process.

In both groups, nurses reported feeling insufficiently involved in the donation process. On the basis of personal observations on both continents, we observed a distinct difference between Europe and the United States with regard to the involvement of nursing staff in the donation process: European nurses are far less involved than their US colleagues when it comes to communicating the option of donation to the donor family. One can expect a nurse’s favorable behavior toward donation to be negatively influenced if the nurse believes or observes that colleagues have conflicting attitudes,13 or worse even, if the medical staff claims that family approach and donation requests are their privileged tasks. As a consequence, health care professionals may hesitate to take a proactive role in donation-related tasks because they fear a conflict with their colleagues.14 Ample evidence has been published, however, indicating that health care professionals’ (nurses included) comfort levels with answering families’ questions about donation is positively associated with obtaining consent for donation.14 In-hospital donation protocols and guidelines therefore should meticulously define each staff member’s role in the donation process as suggested by the Donor Action method with its proven record of successfully tackling the organ shortage in many countries.16 Evidently, such protocols should ensure that only staff members with a positive attitude toward donation be involved when families need to be approached to decide about donation.

Another finding of this study was a reluctance to approach relatives based on incorrect assumptions of support for donation among the general public: only 15.6% of the study group estimated that more than 50% of the Belgian population approves of organ donation. This figure was significantly higher in the control group but still was only 40%, which is in sharp contrast to reality. A few years ago, a large survey among 3 generations in Belgium showed that more than 80% of the adults were in favor of donating their own organs.17 Exactly the same percentages could be observed in this study when hospital staff was asked about their willingness to donate their own organs. Critical care staff clearly underestimate the willingness of their colleagues and the Belgian public to donate, which in itself may affect self-confidence when approaching families about donation.

Too many critical care professionals consider the donation request as a very stressful experience. The fear of distressing potential donor families and the lack of confidence in initiating the request cause many to not even start the donation process. Unfortunately, denying families the option to donate denies them the opportunity to make any choice about it.18

The study’s findings illustrate once more the importance of further education on donation-related issues targeted at nurses, who strongly express these needs and desire greater involvement in the donation process. Donation-related education should stimulate discussions and sharing of positive attitudes among colleagues. Such a process of reflection within the nursing team and education about the existing social acceptance of donation are expected to strongly facilitate the donation process. Knowing that the general public, patients as well as hospital staff, are in favor of donation may make approaching any donor family at a
time of immense loss a lot easier. If staff give families a framework to guide their thoughts and actions and inform them about what will happen after their consent or refusal, then taking responsibility for choosing organ and tissue donation, based on the presumed-consent principle, will no longer be perceived as negative or stressful by donor families.

Conclusions

The study reveals overall high support rates for donation among all survey respondents and strongly suggests a positive effect of the EDHEP program on attitudes and educational needs in the study group. Despite this support, the lack of knowledge and confidence among critical care staff in identifying potential donors and communicating with donor families, as demonstrated in this study, may be the main reason why too many potential donors could not be converted to actual donors. Further education of critical care staff on donation-related issues seems to be key to achieving optimal donation performances. Furthermore, nurses in both study groups consistently demonstrate lower involvement and confidence levels with, and higher educational needs about donation-related tasks. It can be expected, therefore, that more tailor-made educational efforts as suggested by the DA program will lead to higher confidence levels and may create the appropriate team climate for concerted action when critical care nurses are confronted with potential donors and their next of kin.

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References


