Attitude of Health Care Professionals to Organ Donation: Two Surveys Among the Staff of a German University Hospital


ABSTRACT

The persistent shortage of organs for transplantation could be minimized by increasing the number of potential donors. The opinion of the staff of a university hospital toward organ donation is of special interest because they are directly involved in solid organ transplantation. In 2007, we conducted a first voluntary survey concerning organ donation among the staff of the university hospital of Essen. A short information campaign and further opinion poll among staff as well as visitors was performed in 2009 to compare professional and public attitudes toward organ donation. The first poll comprised 242 questionnaires showing 55% of the hospital staff carrying organ donor cards, particularly more women (60%) than men (46%). After this survey, an additional 19% of the hospital staff imagined they might carrying an organ donor card in the future. In the second survey, we analyzed 151 questionnaires, showing 66% of staff members carrying an organ donor card, an incidence significantly greater than among visitors (48%). The need for information regarding organ donation was greater among visitors (35%). However, 21% of the hospital staff still also need education concerning organ donation. More education and increased transparency of transplantation practice are necessary for hospital staff to act successfully as initiators. Hospital staff with positive attitudes toward organ donation may have a positive impact on the attitudes of the general public toward organ donation.

SOLID organ transplantation is an established, successful treatment, often the treatment of choice for many patients with chronic or acute organ failure. However, there is a persistent organ shortage with increasing waiting lists worldwide. In Germany, about a thousand patients on transplant waiting lists die every year. At the same time
there is a large number of potential organ donors that fail to become actual donors.1

In Germany, the donor rate in 2008 was 14.6 per million population compared with 27 per million in the United States or 34 per million in Spain (2007 data).2 Only by accepting extended-criteria donor and living related organs for transplantation has a further increase in organ shortage been prevented.3,4 Germany as well as other countries are looking for additional ways to solve this problem.5–8 The persistent shortage of organs for transplantation could be minimized by an increased number of individuals declaring their intentions regarding organ donation on donor cards. Carrying an organ donor card is a helpful measure to assess actual attitudes toward organ donation, sparing one’s relatives possibly difficult decisions in a potential donor situation.

The opinion of the staff of a university hospital toward organ donation is of special interest because they are directly involved in transplantation medicine in their daily routine. Because transplantation medicine is a main focus of the university hospital of Essen, its staff probably has more knowledge concerning the field than the general public. For hospital staff to act successfully as initiators for the general public, positive attitudes toward organ donation and increased willingness to donate are imperative. We conducted this study to investigate the attitudes of hospital staff toward organ donation and the influence of a brief information campaign. Without improvements in the willingness of the general public as well as of health care professionals to donate, the deplorable organ shortage will persist.

MATERIALS AND METHODS

In 2007 a first voluntary survey was performed among the staff of the university hospital of Essen. The questionnaires containing 15 queries regarding attitudes toward organ donation were handed out at the company doctor’s office. The questions whether the respondents carried organ donor cards or could imagine it in the future were analyzed with regard to demographics: gender, marital status, or profession. Staff members were also asked for reasons why they were not willing to donate organs. Multiple answers were permitted when asked for reasons why they were unwilling to donate organs.

In 2009 a second voluntary survey was performed among hospital staff and visitors. After a short information campaign in the cafeteria, questionnaires containing 5 questions were given out. The respondents were asked if they were visitors or staff members and if they carried an organ donor card. Also they were asked to mark whether they had been provided with information regarding organ donation for the first time, if they wanted more information concerning organ donation, or if they were still unwilling to carry an organ donor card in the future.

Data collection and statistical analysis were performed using Microsoft Excel (Microsoft Corp., Redmond, Wash, United States) and GraphPad Prism 4.0 (GraphPad Software Inc., San Diego, Calif, United States). Data are expressed as absolute numbers and percentages if not stated otherwise. Categorical variables were compared with Fisher exact test or the chi-square test. \( P < .05 \) was considered statistically significant.

RESULTS

The analysis of the first survey included 242 of the 249 questionnaires, showing 134 (55%) of the respondents to carry an organ donor card (Fig 1). There was a significant difference among carriers of organ donor cards with respect to gender (60% among women compared with 46% among men). Concerning other demographic factors, such as age, marital status, or profession, there were no significant differences. A high rate of carriers of organ donor cards was found among the young (21–30 years; 60%), among single people (61%), and among physicians (63%). There was no significant difference when health care professionals were compared with nonmedical staff. Due to this survey, an additional 45 (19%) respondents who so far were not carriers of an organ donor card could imagine carrying an organ donor card in the future. Thirty-five (14%) of the respondents were undecided yet or needed further information concerning organ donation (Fig 2). Only 28 respondents (12%) were not willing to carry an organ donor card in the future. Among the respondents who could imagine carrying an organ donor card in the future (\( n = 45 \)), there was a large number of women (58%), married people (56%), and medical staff members (40%). The wish for further information regarding organ donation was highest among women (66%), married people (63%), and nurses (54%).

When asked for reasons why they were not willing to donate organs, the most frequent answers were “other” reasons (50%) or that the respondents had not considered organ donation (38%). Other stated reasons were ethical reasons (18%), concerns about unfair organ allocation (17%) and not wanting to disturb the peace of the dead (13%). Only few respondents mentioned religious (6%) or medical (7%) reasons.

In the second survey, we analyzed 151 questionnaires, including 128 staff members and 23 visitors. Ninety-six (64%) of the respondents carried organ donor cards. There was a significant difference in the incidence of carriers of organ donor cards among staff members (66%) versus visitors (48%). During the information campaign, 8% of respondents had been provided with information regarding organ donation for the first time (staff 7% vs visitors 13%). The need for

![Fig 1. Carriers of an organ donor card (%) in the first survey \( (n = 242) \) and in the second survey among hospital staff \( (n = 128) \).]
Concerning other demographics, such as age, found more carriers of organ donor cards among women as known. These findings are consistent with other studies that make their decision regarding organ donation. Also, women are more inclined to talk about emotional issues and make their decision regarding organ donation. The wish for further information was highest among women, married people, and nurses. However, among these groups, there already was a high rate of organ donor card carriers. To reach potential organ donors in other demographic subgroups, different strategies need to be applied to raise awareness of organ shortage and to successfully inform and educate people about organ donation.

The significantly higher rate of organ donor card carriers among women compared with men in our study may be attributed to altruism as well as to women's roles in society. Also, women are more inclined to talk about emotional issues and make their decision regarding organ donation. These findings are consistent with other studies that found more carriers of organ donor cards among women as well. Concerning other demographics, such as age, marital status, or profession, there were no significant differences regarding attitudes toward organ donation in our survey. However, in larger opinion polls significant differences in attitudes toward organ donation were detected among medical versus nonmedical professions.

In the first survey, most respondents who were currently not carriers of an organ donor card wanted further information and could imagine carrying an organ donor card in the future. Compared with all the respondents of the first survey, this would represent an additional 19% of organ donor card carriers. In the second survey, 21% of the responding staff members wanted further information regarding organ donation. The wish for further information was highest among women, married people, and nurses. However, among these groups, there already was a high rate of organ donor card carriers. To reach potential organ donors in other demographic subgroups, different strategies need to be applied to raise awareness of organ shortage and to successfully inform and educate people about organ donation.

The most frequent answers when asked for reasons why they were not willing to donate organs were “other” reasons or that the respondent had not thought about organ donation at all so far. The high rate of stated “other” reasons may be attributed to the fact that respondents had not seriously considered organ donation and, therefore, were not able to mention precise reasons for a dismissive stance. More information and education regarding organ donation as well as increased transparency of organ allocation are necessary to dispel ethical concerns about unjust organ allocation.

As our surveys showed, even among medical personnel, there were still concerns and a need for information regarding organ donation. Both surveys, however, confirmed a consistently high number of carriers of organ donor cards among staff members (first survey, 55%; second survey, 66%) (Fig 1). However, staff members still need information regarding organ donation (first survey, 14%; second survey, 21%) (Fig 2). Only a small percentage was not willing to carry organ donor cards in the future (first survey, 12%; second survey, 6%).

DISCUSSION

The persistent organ shortage is severe and devastating in its consequences. Worldwide, the number of patients on waiting lists is increasing steadily while the stagnant number of organ donations leads to patients on transplant waiting lists dying every day. In our transplantation center the waiting list mortality rate reaches 10%.

As our surveys showed, even among medical personnel, there were still concerns and a need for information regarding organ donation. Both surveys, however, confirmed a consistently high number of carriers of organ donor cards among staff members (first survey, 55%; second survey, 66%, respectively). Compared with the general public in Germany, where recent opinion polls found that 17% of citizens carry an organ donor card, a high percentage of hospital staff have positive attitudes toward organ donation.

The transplantation community has already developed various strategies to expand the pool of available organs, such as accepting extended-criteria donors or living donors. A great opportunity to increase the rate of donation from the pool of brain-dead potential donors lies in increasing the consent rate. The spread of organ donor cards allows the living to record their wishes regarding organ donation and may increase the rate of consent. Critical care physicians as well as general practitioners should encourage families to talk about donation and to declare their decisions. Krekula et al found that 79% of the Swedish public expected the physician to bring up the question of organ donation. In a German general population survey, physicians were stated most often as the preferred contact persons on the topic of organ donation (76%). Specially trained physicians therefore may achieve better procurement rates for donor organs.

Possibilities to increase the rate of donation urgently need to be considered. Further evaluation of attitudes to organ donation is required within health care systems as well as in the general public. Reaching the public is a difficult task because there is varied information from multiple sources. The goal of any future information campaign needs to be not only to provide information to the public, but also to create positive attitudes toward organ donation. Due to improved knowledge, staff members of hospitals with transplantation programs seem to demonstrate greater willingness to donate organs. Hospital staff with a positive attitude toward organ donation might have a positive impact on the general public’s attitudes to organ donation. More information, education, and increased
transparency of transplantation medicine are necessary for hospital staff to successfully act as initiators.

REFERENCES