Attitude and Impact Factors Toward Organ Transplantation and Donation Among Transplantation Nurses in China

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ABSTRACT

Background. Health workers’ awareness and knowledge of transplantation medicine can improve people’s sensitivity and reduce their degree of opposition to donations. The medical literature contains numerous examples of attitudes toward organ transplantation and donation aimed at university students or medical staff members, but rarely for transplantation nurses.

Objective. The purposes of the study were to investigate the attitudes toward organ transplantation and donation among transplantation nurses and to explore the impact factors.

Methods. The study was conducted in 37 transplantation surgery wards in 22 hospitals using cross-sectional approach. SPSS (International Business Machines Corporation, Armonk, New York, USA) 7.0 software was used to analysis descriptive and inferential statistics for data.

Results. Five hundred thirty-six effective questionnaires were received and the effective rate was 89.33%. Nurses’ mean age was 28.40 years with a mean service length of 6.54 years. Among these nurses, 66.6% and 78.0% were willing to accept organ transplantation surgery for themselves and their relatives, respectively. Of these nurses, 33.4% would donate their organs after death; whereas 39.9% were uncertain. Only 38.2% were willing to register in the national organ donation system. Of these nurses, 28.2% were willing to sign the organ donation consent forms when their relatives became potential organ donors, and 45.7% were uncertain. Eight independent variables that affected nurses’ attitudes toward donating their organs from most to least significant were: ratio of nurse to bed, title, employment form, age, length of service, position, monthly income, and the highest educational degree earned. Pearson correlation analysis showed a significant correlation among nurses’ attitudes toward organ transplantation, organ donation, and online registration.

Conclusion. The attitude toward donation and transplantation in the hospitals was not too optimistic, and an improvement in the training regarding transplantation and donation among nurses in China is necessary. Nurses are an important group who generate opinion in the patient population, and their negative attitudes can have a significant negative impact on society’s attitudes toward organ donation.

ORGAN transplantation has become the optimal choice to save and extend lives \cite{1}. After February 2013, when the human organ donation plan was officially launched in China, donation after cardiac death has become the main source of organ donation, which eases the great tension of the Chinese donor market to a certain extent.

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However, the organ donor shortage has always been a problem disturbing transplantation professionals worldwide. Attitudes about organ donation and volunteerism are important factors in the lack of donors.

Health care professionals are key elements in facilitating the cadaveric organ donation process [2], especially the transplantation nursing professionals who have more contact with patients than any other professionals. The nurses’ awareness and knowledge of transplantation and donation can affect other people’s sensitivity and attitudes. There have been many medical studies regarding attitudes toward organ transplantation and donation aimed at university students or medical staff members [3–5], but these are rarely about transplantation department nurses. As direct participants in the transplantation and donation process, transplantation nurses are thought to have more active attitudes toward transplantation and donation. Their attitudes and behaviors are on behalf of the transplantation and donation organization, which will have significant impact on the general patient population. The aims of the present study were to assess the attitudes toward organ transplantation and donation among transplantation nurses using a questionnaire designed by the authors, to identify influencing factors, and then to provide information for the governor to make changes to the educational policy and program.

MATERIAL AND METHODS

Design

This study used a cross-sectional approach. Between July 2015 and November 2015, 600 nurses of transplantation surgery wards completed a self-designed questionnaire for assessing the attitudes toward organ transplantation and donation. The study was conducted in 37 transplantation surgery wards in 22 hospitals.

Subjects

The inclusion criteria were as follows: 1) length of service for at least 1 year; 2) working in organ transplantation surgery ward; 3) agreeing to participate in the study. The study group consisted of a convenience sample of 600 nurses. Informed consent was obtained from each subject and this work was approved by the Ethics Committee of the Third Xiangya Hospital of Central South University.

Data Collection Procedure

Each nurse completed a two-part questionnaire. The first part concerns general data (i.e., gender, age, length of service, employment form, title, first degree, highest degree, and monthly income). The second part of the questionnaire regarding transplantation and donation-related data (attitude toward organ transplantation for yourself or relatives if necessary, attitude toward donating your organs after death, willingness to sign the organ donation consent when facing your relatives becoming potential organ donors, attitude toward online registration for self-donation, understanding of transplantation procedures, and understanding of donation procedures, had received specific training in donation and transplantation procedures, and attitude to receive training). At present, there is no standard questionnaire to measure the attitude toward organ transplantation and donation of medical personnel throughout the world. The questionnaire was self-designed and consisted of several questions. These types of questionnaires have been proven to be effective tools for assessing the attitudes of organ transplantation and donation of hemodialysis patients in our preliminary research [6]. The study team was comprised of 22 nurse managers and 4 nursing postgraduates. Firstly, team members explained the purpose of the study and associated concepts. All questionnaires were completed anonymously. To increase the accuracy of the questionnaires, 30 minutes to 45 minutes were allowed for completion.

Data Analysis

All information from the questionnaires was input to a computer according to sequential numbers. Both descriptive and inferential statistics were used for data analysis using SPSS 17.0 software (International Business Machines Corporation, Armonk, New York, USA). A value of P < .05 was considered statistically significant. An alpha of .05 was determined a priori.

RESULTS

Demographic Information of Subjects

A total of 600 questionnaires were sent out; 591 were completed and returned, and 536 were valid for our study (89.33%). The mean age of the study group was 28.40 years (SD = 4.800, range: 20 ~ 51 years), and the mean length of service was 6.54 years (SD = 5.302, range: 1 ~ 31 years). The mean ratio of nurse to bed was 0.38 (SD = 0.11, range: 0.22 ~ 0.59 years). As shown in Table 1, the majority of the participants were female (96.3%), their ages were between 26 years and 30 years (42.5%), they were temporarily employed (39.7%), primary nurses (44.4%), with no title (86.2%), their first degree was junior college (50.4%), their highest degree was undergraduate (80.2%), they were married (52.1%), had no children (57.6%), their monthly income was between 3001 ~ 5000 Yuan ($460 ~ $790) (42.0%), their length of service was less than 5 years (44.2%), the ratio of nurses to beds was less than 0.4 (58.4%), and their number of night shifts were more than 8 per month (48.3%).

Attitudes Toward Organ Transplantation and Donation

Attitudes toward organ transplantation and donation among transplantation nurses were shown in Table 2. Among these nurses, 66.6% were willing to accept the organ transplantation surgery for themselves, 14.4% were not, and 19.0% were uncertain. Of the participants, 78.0% were willing to accept the organ transplantation surgery for their relatives, 8.6% were not, and 13.4% were uncertain.

Of the nurses, 33.4% would donate their organs after death, 26.7% would not, 39.9% were uncertain, and only 38.2% were willing to register in the national organ donation system. Of the nurses, 28.2% were willing to sign the organ donation consent when their relatives became potential organ donors, 26.1% were not, and 45.7% were uncertain.

Among the replies regarding understanding of the transplantation procedures of the participants, 22.2% strongly agreed, 64.0% agreed, 10.1% were uncertain, 3.0% disagreed, and 0.7% strongly disagreed. Replies regarding the understanding of donation procedures, 24.6% strongly