

“Should We Donate Organs After Death?": Exploring Chinese University Students' Knowledge and Perception Toward Cadaveric Organ Donation : A Narrative Analysis

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Background: University students who possess an open-minded attitude and are receptive to new concepts represent a significant potential donor group. Their knowledge and attitudes toward organ donation have a considerable impact on the advancement of organ transplantation.

Methods: Using the method of content analysis, this qualitative study examine the knowledge and attitude of Chinese university students concerning cadaveric organ donation.

Results: The research identified five themes, including cadaveric organ donation as a commendable act, disincentives to cadaveric organ donation, ways to understand cadaveric organ donation, strategies to increase donation rates, and cultural influences regarding cadaveric organ donation.

Conclusion: The findings revealed that some participants lacked adequate knowledge of cadaveric organ donation and were unwilling to donate organs after their death due to traditional Chinese family values and culture. Therefore, it is necessary to implement effective measures to enhance death education among Chinese university students and encourage their understanding and acceptance of cadaveric organ donation.

Keywords: cadaveric organ donation, university students, content analysis

Introduction

Organ donation is a crucial form of social assistance that has the potential to save the lives of terminally ill patients. It is an integral part of human organ transplantation and serves as a premise and foundation for its development.¹ Organ donation consist mainly of living organ donation and cadaveric organ donation. In China, cadaveric organ donation accounts for an overwhelming 97% of all organs available for transplantation.² Cadaveric organ donation refers to the voluntary donation of all or part of the organs by donors after their death to facilitate transplantation. At present, mainland China has a low organ donation rate with only 3 donors per million people, while Hong Kong in China has 6 donors per million people. In contrast, Spain (43.4), Croatia (38.6), Portugal (32.6), Belgium (31.6), and Croatia (38.6) have the top five donation rates.³ The low donation rate poses a significant challenge that hinders the progress of organ donation. Insufficient knowledge about cadaveric organ donation among the general public is a crucial factor responsible for the low rate of cadaveric organ donations.⁴ University students who demonstrate open-mindedness and a willingness to accept new concepts could serve as a potential donor cohort.⁵ Therefore, it is essential to investigate university students' attitude and knowledge regarding cadaveric organ donation.

In recent years, there has been an increasing number of university students participating in organ donation in China.⁵ As a result, their perspectives and attitudes towards cadaveric organ donation will impact the development of the

donation system. A number of previous studies have mainly utilized quantitative research methods to examine their knowledge and attitudes towards cadaveric organ donation.^{6,7}

However, to the best of our knowledge, no qualitative study has been conducted to explore this topic. Quantitative studies often have a macro-level approach and may not adequately capture the detailed information about human experiences and perspectives.^{8,9} Therefore, conducting qualitative research is necessary if we want to examine their perspectives in a more thorough and in-depth manner. Using the method of content analysis, this study aims to investigate Chinese university students' knowledge and attitudes regarding cadaveric organ donation. The research findings of this study may provide insight into strategies for increasing Chinese university students' awareness of cadaveric organ donation.

Methods

Study Design

This study employed the method of content analysis to investigate the knowledge and perception of Chinese university students towards cadaveric organ donation.^{10,11} A semi-structured, face-to-face interview was conducted with students at a university in northeast China.

Study Participants

This study was conducted at a university in Shandong Province, China, from April 2020 to May 2020. Potential participants were informed about the research project and recruitment criteria through school posters, which provided detailed information. A total of 15 eligible participants, consisting of 4 males and 11 females aged between 18 and 23 years old, were enrolled in the study. All participants proficient in Chinese language, both spoken and written, and able to express their ideas about the subject matter. Prior to conducting interviews, the researchers explained the purpose of the study to all participants in a clear and understandable way. Informed consent was obtained from all participants.

Data Collection

Following an interview guide (Box 1), 15 semi-structured interviews were conducted to explore the various benefits and drawbacks of cadaveric organ donation for both donors and recipients. Additionally, the interviews aimed to investigate methods for identifying and increasing the rate of cadaveric organ donation, as well as the influence of traditional culture on the donation. All interviews are audio-recorded and varied in length from 20 to 40 minutes, depending on the participant's knowledge and attitudes towards organ donation. Subsequently, the recordings were transcribed and subjected to rigorous analysis to identify recurring themes.

Data Analysis

To ensure data accuracy, a researcher transcribed each interview verbatim and cross-checked the transcripts with audio files three times. The method of content analysis was used to analyze the data, which followed the following analytical procedures. First, all transcripts were independently examined by all researchers. Second, meaningful words, phrases, and sentences were identified and open coding discussions were held by all researchers. Third, the lead investigator summarized the codings related to participants' attitudes and knowledge about cadaveric organ donation. Finally, the

Box 1 Interview Questions

What's your attitude towards cadaveric organ donation?
What are the benefits of cadaveric organ donation?
What are the disincentives to cadaveric organ donation ?
How do you know cadaveric organ donation?
How to increase the donation rate effectively?
How do you think the influence of traditional culture on cadaveric organ donation?

researchers worked together to confirm the trustworthiness of the identified themes and sub-themes. The resultant themes and sub-themes will be presented and discussed in greater detail.

Ethical Considerations

This study was approved by the ethics committee of Qufu Normal University (QFNUN2021-01). Written informed consent was obtained from study participants. Participants informed consent included publication of anonymized responses. All participants understood and agreed to the use of their data for analysis and academic purposes.

Results

After conducting 15 face-to-face interviews, a total of sixteen categories and five themes were identified (Table 1). Subsequently, these themes were further elaborated through direct quotes of the participants.

Theme 1: Cadaveric Organ Donation as a Commendable Action

This theme explores participants' positive attitudes toward cadaveric organ donation and the reasons why they consider it a good action.

Benefits to the Donor

A commonly shared notion was that donating one's organs after death is a selfless and admirable act. This altruistic gesture instills a sense of satisfaction not only in the donor but also in their loved ones. This category can be further divided into three sub-categories that include life extension, spiritual gratification, and increased awareness on their own health status.

Life Extension

The participants reached a unanimous understanding that cadaveric organ donation is a crucial means of preserving the continuity of the donor's life. Through this act, the donors' organs are able to sustain the recipient's life, providing a sense of comfort for the donor's family who feels that their loved one continues to live on in the world.

For terminally-ill patients, their own lives are drawing to a close. However, by choosing to donate their organs to those in need of a transplant, they can provide an opportunity for others to continue living. This act of generosity gives hope for a second chance at life to those who may otherwise be facing a bleak future. (Participant 4)

Table 1 Results: Five Themes and Their Respective Subthemes

Themes	Subthemes
Theme 1 Cadaveric organ donation as a commendable action	Benefits to the donor Benefits to the recipient
Theme 2 Disincentives to cadaveric organ donation	Opposition from family Lack of trust in both supervision system and medical staff Lack of knowledge about cadaveric organ donation
Theme 3 Ways to understand cadaveric organ donation	Network media Textbooks Family members as medical professionals
Theme 4 Strategies to enhance donation rates	Individuals Social media Government
Theme 5 Cultural influences	Traditional culture as barriers to cadaveric organ donation Traditional culture as incentives to cadaveric organ donation

Spiritual Gratification

Overall, participants expressed the belief that organ donation is a selfless act demonstrating humanity, brotherhood, and dedication. They viewed it as an altruistic behavior that has the power to rescue those in great need.

Organ donation will make me feel a great sense of fulfillment and dedication to society. This act of giving allows me to contribute towards the betterment of others and brings a deeper meaning to my life. (Participant 2)

Increased Awareness Regarding their Own Health Status

Participants stated that individuals who choose to donate their organs after death actively take measures to ensure that their organs are kept in good condition.

Individuals who wish to donate their organs after death should prioritize maintaining good health to ensure their organs are in proper working condition. This can be achieved through regular exercise and healthy lifestyle habits, which helps them pay special attention to their health in their daily lives. (Participant 11)

Benefits to the Recipient

All participants stated that cadaveric organ donation has the potential to save the lives of the recipient while also yielding positive effects on their personal values.

Saving the Recipient's Lives

The benefits to the recipients were clear and undeniable. The receipt of a donor's organ has the potential to permit the recipient to recuperate from an ailment and regain their regular way of life. Furthermore, the act of receiving such a gift may inculcate a sense of positivity and trust in the altruism of the society in the recipient, which, in turn, could inspire them to become more engaged in their local community and give back to the society as much as possible.

After being transplanted into a healthy organ, I can live longer than I ever have. I can do more of what I want to do, I can accompany my family, serve my community, and thus realize the value of my life. (Participant 1)

Changing the Recipient's Values

China has implemented a double-blind policy for organ donation, meaning that neither the recipient nor the donor knows each other's identity. As the Chinese old saying goes, a drop of water in need shall be returned with a burst of spring in deed. Thus, the recipient may not be able to give back to the donor, but they can still choose to do something good for others.

Donors' altruistic spirits may inspire recipients to donate their organs after their death. In this way, more terminally ill patients with organ failure could get organs available for organ transplant. (Participant 11)

Theme 2: Disincentives to Cadaveric Organ Donation

This theme describes several factors that prevent participants from donating their organs after death.

Opposition from Family

Family decision-making is a crucial aspect of Chinese society, which significantly impacts an individual's decision regarding organ donation.

I am personally inclined to donate my organs after death. However, there may be familial barriers to organ donation, as my parents, relatives, spouse, and even children may not support my decision. In light of this, I may not be able to make a final decision to donate my organs after my death. (Participant 1)

Lack of Trust in Both Supervision System and Medical Staff

Some participants have expressed concerns regarding the supervisory protocols for cadaveric organ donation, as well as the professional aptitude of the medical personnel responsible for overseeing the process.

Supervision System

Participants who exhibited willingness to donate their organs have also expressed concerns about the oversight and distribution of donated organs.

It has been reported that certain transplantable organs are acquired illegally through organ trading. Furthermore, there have been some reports of organ trafficking taking place within hospitals. (Participant 9)

Professional Qualities of Medical Staff

Participants stressed the importance of doctors showing utmost respect towards the deceased and ensuring that all donated organs are used judiciously.

There have been reports of donated bodies being desecrated after they were provided for medical research, which has caused widespread concern. This has consequently led us to fear that donated organs might also be subject to similar mistreatment. (Participant 10)

Lack of Knowledge About Cadaveric Organ Donation

Death education courses, which would increase knowledge of organ donation, are not widely available for university students. As a result, participants expressed a lack of understanding regarding organ donation.

Prior to taking part in this interview, I had absolutely no knowledge about organ donation. (Participant 8)

Theme 3 Ways to Understand Cadaveric Organ Donation

This theme explores how participants understand cadaveric organ donation. We have identified three main sources through which participants gain access to cadaveric organ donation, namely: network media, textbooks, and family members working in the medical field.

Network Media

In recent times, a variety of network media resources have emerged and gained widespread popularity. These include platforms like WeChat, TikTok, and MicroBlog, which often showcase messages pertaining to organ donation. For university students, these resources make it effortless to obtain information on cadaveric organ donation.

I generally come across information about cadaveric organ donation through news reports. (Participant 15)

My preferred sources of information regarding cadaveric organ donation are microblogs and official websites, as they provide insightful news articles on the topic. (Participant 12)

Textbooks

Alongside the ongoing education reform in China, certain schools have introduced death education. According to some participants, this approach proves effective in teaching students about organ donation.

During my elementary school years, I encountered the concept of cadaveric organ donation through a reading assignment. (Participant 11)

Family Members as Medical Professionals

Participants who have family members working in the medical field tend to possess a thorough understanding of cadaveric organ donation. Moreover, it is common for these individuals to hold a positive attitude towards organ donation.

Growing up with family members in the medical profession, I heard stories of organ donation and its impact on saving lives. As a result, I have developed a desire to donate my organs after my passing. (Participant 6)

Theme 4 Strategies to Enhance Donation Rates

This theme deals with ways to improve organ donation rates. The majority of participants expressed that bridging the gap between donated and needed organs for transplantation necessitates collective efforts from the entire community.

Individuals

According to most participants in the study, university students are poised to make a considerable impact on increasing organ donation rates. This is likely due to their receptiveness to innovative concepts and eagerness to shoulder social responsibility.

A large number of university students endorse organ donation and express a willingness to donate their organs after death. (Participant 1)

University students are a potential reservoir of organ donors, owing to their altruistic values and propensity to aid others. It is therefore crucial to provide these students with ample education on the topic of organ donation. (Participant 5)

Social Media

Participants stated that utilizing mass media and public figures could increase the general public's awareness of organ donation and thus enhance organ donation rates.

TV Programs

Given that TV programs have the potential to reach a large and diverse audience, it would be advantageous to utilize them for organ donation education and awareness campaigns.

I think there could be different types of TV shows or TV series that educate the general public about organ donation in a scientific way. (Participant 11)

Personally, I rely on TV news programs like CCTV and major media outlets such as Headlines Today as my primary sources of information on organ donation. (Participant 12)

Idol Effect

Participants stated that using celebrity endorsements is an effective strategy for boosting the number of organ donors. The public often holds celebrities in high esteem, giving weight to their actions and expressions and allowing them to influence social behavior in a way that can significantly increase public awareness about organ donation.

Celebrities should communicate the benefits of organ donation to the general public. In addition, celebrities could take the initiative to donate their organs after death. Their actions will exert positive influence on their followers' attitude toward organ donation. (Participant 9)

Government

Participants said that the existing laws and regulations relating to organ donation and transplantation are insufficient in keeping up with the swift advancements in transplant medicine. They argued that the government should reform the current laws and regulations relating to organ transplant. Moreover, the government may consider providing incentives to motivate people to donate their organs after they pass away.

Amending Laws or Regulations Concerning Organs Transplant

Human Organ Transplant Regulations has been promulgated for a long time, which is outdated and needs an overhaul. In addition, the lack of law on brain death restrict the development of organ donation and transplant.

The government has a significant role to play in legislation regarding organ donation. Although there are already laws and regulations in place for cadaveric organ donation, there is still much room for improvement, and the legal and regulatory system must be further developed. (Participant 1)

As far as I know, the brain death law has not been issued in China, which is a barrier to organ donation. (Participant 6)

Providing Non-Financial Incentives

While cadaveric organ donation is currently required to be voluntary and free from financial incentives, the government could offer non-financial incentives tailored to the individual circumstances of donors.

Donors or their family members should be given some non-financial incentives, which can be some spiritual rewards or even a memorial medal. For example, medicaid, priority of medical service or honors and awards can be offered to donors and their family members. (Participant 7)

Theme 5 Cultural Influences

China's traditional culture has a significant impact on people's attitudes towards cadaveric organ donation. This theme explores the influence of traditional cultures on the willingness of individuals to donate their organs after death.

Traditional Chinese Culture as a Barrier to Cadaveric Organ Donation

Some participants stated that traditional Chinese culture acts as a deterrent that prevents them from donating their organs after death.

Keeping Body Intact

Participants expressed the view that preserving the integrity of the deceased's body is a demonstration of filial piety, as it shows respect to their ancestors.

I believe my body must remain intact after death. I would rather have it cremated than donated, as I was taught that an intact body is necessary for a complete reincarnation. (Participant 9)

When it comes time to lay a loved one to rest, maintaining their bodily integrity is essential. Donation of organs would break the body, causing immense psychological pressure on family members. Most people cannot bear such suffering. (Participant 10)

Traditional Funeral Customs

The impact of Buddhism and Confucianism on traditional Chinese funeral practices is significant.

In Buddhism, it is believed that a deceased person's body should remain intact and unremoved for three days before being buried. Breaking or removing the body within this time frame can cause great pain. (Participant 12)

Confucian tradition dictates that people should be laid to rest in their birthplace after death. The physical body serves as a tangible reminder for annual visits by descendants, and as such, it must be preserved. (Participant 1)

Traditional Culture as Incentives to Cadaveric Organ Donation

Despite the presence of disincentive factors, traditional cultural values continue to serve as incentives for cadaveric organ donation. Most participant said that Confucian culture prioritizes mutual understanding and assistance, which may inspire individuals to donate their organs after their death. Furthermore, Confucius' emphasis on "benevolence" provides further encouragement for organ donation.

Traditional culture promotes empathy and mutual understanding. This kind of empathy involves empathetically feeling the pain of others and doing everything possible to assist them. I believe that traditional culture can inspire people to donate their organs after death. (Participant 2)

Buddhism has a widely held belief that saving a life is an act of great beneficence. (Participant 4)

Confucianism advocates for the idea of loving others, which can be interpreted as a support for organ donation. (Participant 5)

Discussion

This study investigated the knowledge and perceptions of Chinese university students towards cadaveric organ donation. Consistent with findings in previous studies,^{12,13} this study found that the majority of the participants demonstrated a good understanding of cadaveric organ donation and also expressed their willingness to donate their organs after death. However, some participants lacked adequate knowledge about the topic, highlighting the pressing need for organ donation education among Chinese university students to promote the growth of organ donation in China.

In China, family plays an important role in the decision making process of organ donation.^{14,15} Chinese individuals are emotionally attached to their families.¹⁶ Despite their desire to donate their organs, the opposition of family members can alter their decision. This finding is consistent with previous studies,¹⁷ which show that family has an impact on a person's attitude towards cadaveric organ donation. Nevertheless, some participants in our study stated that they will persuade their family members to support their decision to donate their organs if they encounter opposition.

According to participants, traditional Chinese culture plays a vital role in cadaveric organ donation. On one hand, beliefs in maintaining bodily integrity, adherence to funeral customs, and strong family values act as barriers that prevent individuals from donating their organs after death. On the other hand, the Confucian values of mutual understanding and assistance may serve as incentives for organ donation. As such, traditional Chinese culture can both discourage and motivate individuals to donate their organs after death. This findings are consistent with those studies that have explored the influence of traditional Chinese culture on organ donation.^{18–20} Thus, it is crucial for policy-makers to be aware of this the dual nature of traditional Chinese culture when designing organ donation systems.

Most participants in this study stated that the lack of scientific knowledge about organ donation was a significant contributor to the severe shortage of organs available for transplant. Furthermore, the absence of clear legislation on brain death and inadequate awareness among university students about this topic are major obstacles to the development of cadaveric organ donation in China.¹⁹ Despite the fact that a sizeable number of university students die each year from brain injuries, their organs are frequently not donated to those in need of transplants. It is thus vital to educate university students about brain death so they can join the pool of potential brain dead donors.

Conclusion

In this study, we used the method of content analysis to investigate how Chinese university students perceive and understand cadaveric organ donation, which is the primary source of organs for transplantation. In this qualitative study, we identified five themes related to cadaveric organ donation: cadaveric organ donation as a commendable action, disincentives to cadaveric organ donation, ways to understand cadaveric organ donation, strategies to enhance donation rates, and cultural influences. Our findings revealed that some participants lacked adequate understanding of cadaveric organ donation or were reluctant to become organ donors after death because of the influence of family values or traditional beliefs. Therefore, it is essential to implement effective measures to improve death education among Chinese university students and enhance their understanding of cadaveric organ donation.

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Disclosure

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References

1. Wu H. Investigation of undergraduates' attitude and cognition on human organ donation. *J Clin Rehabil Tissue Engin Res.* 2008;12(31):6125–6129.
2. Wu Y, Elliott R, Li LZ, et al. Cadaveric organ donation in China. *Medicine.* 2018;97:10.
3. Gómez MP, Arredondo E, Páez G, et al. International registry in organ donation and transplantation 2010. *Transplant Proc.* 2014;46(4):1044–1048. doi:10.1016/j.transproceed.2013.11.138
4. Shi B. The status quo and development of organ donation in China. *Organ Transplant.* 2019;10(01):37–40.
5. Zhang L, Li Y, Zhou J, et al. Knowledge and willingness toward living organ donation: a survey of three universities in Changsha, Hunan Province, China. *Transplant Proc.* 2007;39(5):1303–1309. doi:10.1016/j.transproceed.2007.02.096
6. Ge F, Kaczmarczyk G, Biller-Andorno N. Attitudes toward live and postmortem kidney donation: a survey of Chinese medical students. *Exp Clin Transplant.* 2014;12(6):506–509.
7. Wu X, Gao S, Guo Y. Attitude of students in Shanghai university of traditional Chinese medicine toward donation after cardiac death. *Transplant Proc.* 2020;52(3):700–705. doi:10.1016/j.transproceed.2019.12.036
8. Wu Y, Zhang Q, Huang Y, Qiu S. Seeking medical services among rural empty-nest elderly in China: a qualitative study. *BMC Geriatrics.* 2022;22(1):doi: 10.1186/s12877-022-02911-0.
9. Wu Y, Zhang Q, Li L, Li M, Zuo Y. Control and prevention of the COVID-19 Epidemic in China: a qualitative community case study. *Risk Manag Healthc Policy.* 2021;14:4907–4922. doi:10.2147/RMHP.S336039
10. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care.* 2007;19(6):349–357. doi:10.1093/intqhc/mzm042
11. Hanson JL, Balmer DF, Giardino AP. Qualitative research methods for medical educators. *Acad Pediatr.* 2011;11(5):375–386. doi:10.1016/j.acap.2011.05.001
12. Ye Z, Xiao Y. Suggestions on the legislation of organ donation in China. *Med Philos.* 2018;39(9):72–76.
13. Molzahn AE, Starzomski R, McDonald M, O'Loughlin C. Chinese Canadian beliefs toward organ donation. *Qual Health Res.* 2005;15(1):82–98. doi:10.1177/1049732304270653
14. Cheng BK. Cultural clash between providers of majority culture and patients of Chinese culture. *J Long Term Home Health Care.* 1997;16(2):39–43.
15. Cong Y. Doctor-family-patient relationship: the Chinese paradigm of informed consent. *J Med Philos.* 2004;29(2):149–178. doi:10.1076/jmep.29.2.149.31506
16. S. IA, Wang Y, Gao W, et al. Organ donation in China: looking within, rather than looking west[J]. *Chin Med Ethics.* 2018;31(02):137–150.
17. Irving MJ, Tong A, Jan S, et al. Factors that influence the decision to be an organ donor: a systematic review of the qualitative literature. *Nephrol Dial Transplant.* 2012;27(6):2526–2533. doi:10.1093/ndt/gfr683
18. Lau DC. *The Analects.* Hong Kong: The Chinese University Press; 1963.
19. Aaron Lam W, McCullough LB. Influence of religious and spiritual values on the willingness of Chinese—Americans to donate organs for transplantation. *Clin Transplant.* 2010;14(5):449–456.
20. Yong BH, Cheng B, Ho S. Refusal of consent for organ donation: from survey to bedside. *Transplant Proc.* 2000;32:1563. doi:10.1016/S0041-1345(00)01332-4

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