

# A Study on the Subjectivity of Organ Donation for Adults

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## Abstract

**Background/Objectives:** The purpose of this study is to understand subjective structures of subjectivity on organ donation by using of Q method, draw up plans to promote positive perceptions by each type and utilize a basic material to provide authentic ways for activating organ donation.

**Method/Statistical Analysis:** To collect non-structured statements, a population was extracted by use of materials such as literatures and news articles and interviews, then finalized 32 Q samples. These were distributed final 33 p samples via Q sorting procedures and analysed the results throughout Q factors analysis.

**Findings:** Subjectivity of organ donation was finally verified 4 types and explained 59.2% of total variables. The power of explanation by type was 40.3% for the 1<sup>st</sup> type, 10.6% for the 2<sup>nd</sup> type, 4.8% for the 3<sup>rd</sup> type and 3.5% for the 4<sup>th</sup> type. Among 33 participants, 18 for 1<sup>st</sup> type, 6 for the 2<sup>nd</sup> type, 6 for the 3<sup>rd</sup> type and 3 for the 4<sup>th</sup> type was distributed. Each type was shown as a type for social public interest-oriented donors, a reluctant type for donating their conviction, a passive type for donating organs and a type for donating organs after their death recognition.

**Improvements/Applications:** This study will be helpful and useful in drawing up plans for promoting positive perceptions depending upon individual subjectivity of organ donation and utilizing basic materials to provide realistic ways for activating organ donation.

**Keywords:** Organ, donation, subjectivity, adult, Q-methodology.

## Introduction

With the development of medical technology, we are trying to prolong lifespan as well as keep our life healthy, however organ transplantation is only effective and only solution for the patients who are terminally ill<sup>[1-2]</sup>. The success rate for organ transplantation is increasing and the number of patients who need to transplant organs is also rapidly increasing<sup>[3]</sup>. The Brain-death organ donors were 515 in Korea in 2017, it was significantly lower than in other countries compared to number of

donors per million people<sup>[4]</sup>. Organ donation not only enables the patients who wait for being transplanted to prolong their life but has a great effect on people nearby the patients. It is the matter for patients, their family and society<sup>[5]</sup>. It might therefore be the matter which is ultimately meant to pursue the public interest of all members of our society and is also seems crucial to ensure more organ donors and applicants registered to settle problems occurred by order imbalance of organ donation. However, negative effects such as organ trade caused by an extreme imbalance that supply of organ donation falls short of demand pose social issues.

In addition, a lot of ethical and procedural arguments were raised. To settle this, Korean government has made lots of efforts to create systematic transplantation procedures like prohibition of organ trade and legalization of organ harvesting of brain death by foundation of KONOS responsible for organ transplantation making

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law on organ transplant and amending it several times. However, it is reported that the number of organ donors is getting decreased because of the influence of cultural Confucian tradition not to embarrass own body, reduced prevalence of brain death and manpower shortage needed for brain death management<sup>[6]</sup>. It is also reported that prolonged life expectancy made supply of organs lower by low death rate, and that legal issues like consent with family members, issues of organ donation information, and issues on management are factors that impede activation of organ to donation<sup>[3,7]</sup>. There is still a lack of awareness of organ donation, if any, it is very rare to pledge to donate organs, and even though organ donation pledges were made, there are few cases that lead to actual organ donation. It is therefore needed to make effort to revitalize organ donation<sup>[7,8]</sup>.

Therefore, it is important to establish social atmosphere where citizens and medical staffs naturally accept organ donation and advertisement and educational activities at national level should be preceded through cultural diffusion of organ donation to inspire recognition on organ donation<sup>[5]</sup>. Approaches for increasing individual organ donation pledges, for eliciting family's consent and for establishing social atmosphere should be driven.

There were lots of precedent descriptive studies on the perception, knowledge and attitudes of organ donation based on certain groups such as medical personnel, medical university students, nursing university students, nurses, etc<sup>[1-2,9-10]</sup>. However attitudes on organ donation are difficult to define as positive or negative recognition and an action to register as an organ donor is required for grasping subjective structures of individual value, belief, attitude, etc. Therefore, this study was to understand subjective structures on organ donation by applying Q methodology which provides individual insight on humans' subjectivity. Additionally, the study was performed to draw up plans for promoting positive perceptions depending upon individual subjectivity of organ donation and utilize basic materials to provide realistic ways for activating organ donation.

## Method

Q methodology is based on the assumption of intraindividual difference in significance, and scores difference among samples represents meaning difference to the researcher who sorted it<sup>[11]</sup>.

**1. Q Sample:** To collect non-structured statements

which enable to express subjectivity of participants, materials such as literatures and news articles and interviews were utilized. Except duplicated statements through interviews, two researchers selected 50 statements and rearranged 35 statements were finally determined to 32 statements by two researchers a enabling to include various opinions.

- 2. P Sample:** Q methodology, a research method that conceptualize contents rather than people, should be taken into account the characteristics that different opinions can occur more than random method and the number of samples is not as large as random method<sup>[12]</sup>. After explaining the purposes of the study and it will not be used in any other purpose, 33 subjects who understood the purposed of the study and agreed to participate in the study were finally selected and written consent from in writing
- 3. Q Sorting:** Each subject was given 32 Q cards written each statement on it and forced to arrange in important order according to personal perspective. Q cards were classified into most strongly agreed statement (+4) and most strongly disagreed statement (-4). Starting from the 1<sup>st</sup> week of March, 2019 for four weeks, researchers met respondents in person, explained and classified. The statements placed both extremes were forced to write the reason why they chose.
- 4. Data Processing:** Upon completion of P sample investigation, score was given as following; +1 point was given to the most strongly disagreed and +9 was given to the most strongly agreed. After each score had been coded, major factor analysis method was carried out by using PC QUANL Program. Various numbers of factors were input on the base of Eigen value more than 1.0 then 4 types which enabled to depict its unique property were classified among results.

## Result

Subjectivity on organ donation was eventually identified in 4 types accounting for 59.2% of total variances. The power of explanation by type was [Table 1]. Among 33 respondents, 18 for the 1<sup>st</sup> type, 6 for the 2<sup>nd</sup> type, 6 for the 3<sup>rd</sup> type and 3 for the 4<sup>th</sup> type was divided and correlation which shows degree of similarity is as shown in [Table 2]. To grasp subjective characteristics and the differences by type on organ donation, the most strongly agreed statements and the most strongly disagreed statements in each type were

primarily interpreted among 32 statements. In each type, the respondents who have weight factor more than 1.00 represent its type as a typical person, showing 12 for the 1<sup>st</sup> type, 4 for the 3<sup>rd</sup> type, 1 for the 2<sup>nd</sup> and 4<sup>th</sup> respectively.

**Table 1. Eigen value and variances, cumulative variance**

	Type 1	Type 2	Type 3	Type 4
Eigen value	13.287	3.493	1.586	1.161
Variance	.403	.106	.048	.035
Cumulative variance	.403	.509	.557	.592

**Table 2. Correlations between types**

Type	1	2	3
2	.429		
3	.519	.657	
4	.598	.548	.655

To analyze subjectivity on organ donation, types were described for focusing on the most strongly agreed statement (+4) and most strongly disagreed statement ( $Z \leq -1.0$ ) among 32 statements.

**1<sup>st</sup> Type: Social public interest-oriented type:**

The people who belonged to the 1<sup>st</sup> type thought the purpose of organ donation is to prolong life and to save several people, therefore they thought active promotion is very important. They also thought that more people would participate in organ donation if they knew more about it, and that more patient would be saved through organ donation. On the other hand, they opposed the fact that why they do not donate their organs because of religious belief, values, and thinking of rising from the dead and that it is hard to accept their bodies are transplanted into others. Unlike other three types, they would let the people around them know their intention for organ donation. The people who represented the 1<sup>st</sup> type intended to donate their organs in the future, and thought education is absolutely necessary, even though they have never been educated about organ donation. The people in the 1<sup>st</sup> type were named social public interest-oriented donors because they thought organ donation as a crucial act which enables to save several lives.

**2<sup>nd</sup> Type: Reluctant type:**

The people who belonged to the 2<sup>nd</sup> type had in common on organ donation in that organ donation is valuable in prolonging others' lives, however they did not have any intention for organ donation to help others. They regarded organ

donation as either donating least organs such as corneas or donating only to the extent that body is intact. A respondent in his 50s worried about postmortem mutilation and never admitted being destruction of a body. 5 out of 6 belonging to in this type did not have intention for organ donation, and most of them had no blood donation experience compared to other types. They thought it valuable to donate organs, they however did not perceive organ donation as an act to help others, but a separate matter from them. Given that they were very reluctant to join organ donation, they were called a reluctant type for donating one's conviction.

**3<sup>rd</sup> Type: Passive type:** The people who belonged to the 3<sup>rd</sup> type felt the necessity for organ donation, they, however did not want their death and thought organ donation was made consent with their parents or family members. They also thought if their parents had known their children's organ donation, they would strongly have opposed or expressed sad on it. This type had more educational experience on organ donation, but the effect on it was minimal. Since they thought decision making on organ donation had not been changed, they did not agree on the opinion of active promotion or education on organ donation. On the other hand, it will be valuable if organ donation enables to prolong someone else's life. They had no active intention for organ donation, however they thought donated organs were used to save lives through appropriate procedures. They were named passive type for donating organs mainly because they did not want to think anything related to death.

**4<sup>th</sup> Type: Type for donating organs after their death:**

The people who belonged to the 4<sup>th</sup> type thought to donate organs connects directly the death, as not knowing anything, they could donate organs after death. So this type is considered as type for donating organs after the death recognition. They thought on one side they admit upcoming death if they are told about organ donation by medical team and on the other side they worried about whether organ is sold or not. In addition, they did not think religious belief or values as obstacles for organ donation. Since they were reluctant to donate their organs, they could not accept their family's donation yet. To them organ donation is the recognition of their death. They however thought 'I can give a good impression to others around me by donating organs.' The people in this type were named organ donors after their death recognition because they are the type, who cannot donate their organs now, but can donate organs after their death.

## Discussion

The study was conducted to study subjective structures on organ donation according to personal characteristics and subjectivity in Korea where there are a lot of patients who need organ donation but actual organ donors were very low. The analyzed 4 types had each characteristic however, they had 8 statements in common. While in [8] study on organ donation and organ transplantation, the more position an individual has, the higher intention for organ donation the person has, in this study the people in the 1<sup>st</sup> type had more positive perception on organ donation, therefore they had higher intention for organ donation. [9] reported that knowledge on organ donation had been significantly affected on attitude and subjective norm. With this, continuous education and governmental level promotion will be required to increase organ donation. The fact that the people belonged to the 1<sup>st</sup> type had a lot of blood donation experiences backed up the argument that they had higher responsibility for the society [13].

The 2<sup>nd</sup> type admitted the value for organ donation at the same time they were reluctant to donate their organs due to a sense of rejection on postmortem mutilation. According to [14], the need for respect for organ donors responded positively accounting for 77.3% of total respondents, and the ways for respect were presented 'support service for funeral (63.4%)', and 'Support program for the bereaved at social level (40.6%)' in order. This can be seen the same that the respondents in the 2<sup>nd</sup> type stated that they need after death support for those who had brain death after organ donation. For 2<sup>nd</sup> type respondents, provision of accurate information on organ transplantation and postmortem mutilation will be a top priority. They recognized the value of organ donation, but they were reluctant to donate organs.

The 3<sup>rd</sup> type had educational experience on organ donation and participated in the real organ transplant surgery, rather they did not have positive intention on organ donation. They tended to distrust effects of education, but they thought they need organ donation. To them, emotional support and education is needed, emphasizing them positive value that organ donation can enable others to live a new life.

The 4<sup>th</sup> type is the type that organ donation is connected to death and they thought their family dislike to donate their organs. In this respect, they need to be interested in organ donation and education to change their wrong awareness on organ donation is required.

The understanding for organ donation should be aimed through death education, information for making them look back on value of life should be given and chances for selection should be provided for them.

It is suggested that programs to encourage positive attitude on organ donation and put it into practice should be developed depending on each type through appropriate education.

## Conclusion

This study was designed to understand subjective structures on organ donation by using Q method which provides unique insight of humans' subjectivity. The subjectivity on organ donation by adults was revealed 4 types. This study will be utilized as basic materials in preparing for ways to promote positive awareness and realistic ways to activate organ donation depending on individual subjective type on organ donation. Along with, information related to organ donation should be provided to make meaningful death through death preparation education and chances to select organ donation should also be generated. The development of educational or promoting program for activating organ donation registration is suggested by understanding characteristics of each type.

**Ethical Clearance:** Not required

**Source of Funding:** This paper was supported by Kkottongnae University in 2019.

**Conflict of Interest:** Nil

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