The Experience of Perioperative Nurses Involved in Organ Procurement

Yi-Jen Wang • Chi-Yun Lin*

ABSTRACT

Background: In the organ transplant process, the perioperative nurse plays an important role in assisting with organ procurement, during which they are frequently required to witness the death of donors. Their experiences and feelings regarding such are largely hidden and little discussed.

Purpose: The purpose of this study was to understand the experience, feelings, and self-care strategies of perioperative nurses during the course of organ procurement.

Methods: This study adopted a qualitative method, using purposeful sampling methods and a semiconstructed outline to conduct face-to-face interviews with six perioperative nurses from an organ procurement organization located in northern Taiwan. Collected data were analyzed using content analysis.

Results: Results were categorized into two distinct parts. The first described the organ procurement experience, with described feelings including a journey begins with learning, feelings of slaughter and doubts about death, and death is a new beginning. The second described ideas of self-care, with described ideas including facing problems, thinking and adjusting, engaging in leisure activities, holding religious beliefs, separating work from private time, continuing self-training, and sharing.

Conclusions: This study indicates that witnessing donor deaths makes perioperative nurses feel uncomfortable and even induces trauma. Better understanding the effects of the organ donation process on all related staff and how to facilitate their self-care will be important parts of the next step in helping perioperative nurses better cope with their work environment and become better equipped to balance professional and psychological needs.

Key Words:
organ donation, organ procurement, perioperative nurses, self-care.

Introduction

In the past decades, the advancement of medical science and technology has made it possible to cure patients with critical health conditions. When important organs fail or malfunction, an increasingly feasible solution is to utilize organ transplantation, in which a healthy organ replaces a defective one. Transplantation is used mainly in the treatment of major organs, including the heart, liver, and kidney, among others. Patients who accept a major organ transplant now have a general 1-year survival rate better than 90% (Ko, 2000). Although an increasing number of people require healthy organs to extend life, the number of willing organ donators lags far behind. Factors related to traditional beliefs, religion, and cognition all combine to make people hesitate to donate organs (Conesa et al., 2004; Huang & Lu, 2005; Matesanz, 2004). In addition, the attitudes and perceptions of medical personnel and transplant teams may also be factors preventing the expansion of donor willingness and should play an even more important role in spurring a rise in organ donations (Chang, Yeh, & Wen, 2002; Huang, Wang, Hwang, & Hwang, 1999). Thus, the question is raised as to the critical factors of influence on medical personnel attitude. This research was designed to explore the experience of perioperative nurses working in organ procurement teams. Research findings may represent a first step toward identifying critical factors influencing professional personnel attitudes toward organ transplantation.

A requirement for organ donation is that a donor must be brain-dead, which means, however, that the donor may still maintain normal body functions. As such, the donor can still be physically alive when he or she is sent to the operating room, a situation which certainly induces psychological reactions among team members. In Taiwan, donated organs are registered in a follow list, and typically, multiple hospitals will vie to secure the organ, which produces pressure on staff in the donation hospital. Also, organ procurements involve lengthy surgical procedures, which often take place at night, leading to a shortage of workforce. However, organ procurement must be done quickly to ensure that the organ stays fresh and uninjured, which leaves little time to pay any attention to the needs of hospital staffs (Regehr, Kjerulf, Popova, & Baker, 2003). All these factors point to a work atmosphere that is unpleasant and stressful. Such an
atmosphere may have lasting effects on staff’s mood during or after work.

Cater-Gentry and McCurren (2004) previously conducted research on transplant team nursing staff and found anger (caused by not saving a patient’s life), numbness, emotionless, hollow feelings, sadness, and feelings of melancholy and helplessness among some of the perioperative nurses. Such reactions may reflect the psychological trauma of witnessing donor death during the organ procurement process. The definition of psychological trauma is the injury or threat to physical integrity caused by emergency incidents involving death that are witnessed or heard about (Wainrib & Bloch, 2001). Individual idiosyncrasies will affect trauma levels, with emotional responses described earlier showing the extent of the effect. Regehr et al. (2003) reported the reaction of perioperative nurses during organ procurement, stating that they would first think of death, asking such questions as the following: Is the donor really already dead? Have they already done a detailed examination and given proper treatment? Is the donor really unable to be resuscitated? Existing descriptions only refer to perioperative nurses’ perceptions and feelings about their organ procurement work but lack descriptions about their experiences over the entire process of organ procurement. Therefore, the purpose of this study was to explore the experiences and feelings of perioperative nurses during the process of organ procurement in Taiwan. Understanding this phenomenon can provide a base for the development of clinical and administrative interventions and for further discovery of issues regarding organ transplantation in Taiwan.

Methods
The organ procurement is a special surgery. It is important to understand nurses’ perceptions and feelings through their own words so that we can discover the deeper meaning of the phenomenon. This study used a qualitative method to understand perioperative nurses’ perceptions, feelings, and self-care strategies for organ procurement work.

Participants
Purposeful sampling was used, with 6 participants, perioperative nurses from an organ procurement organization in northern Taiwan, given a semistructured in-depth interview. Participants were selected from among senior nurses who had been working for a period longer than 3 years to better understand their ability to participate in organ procurement for an extended time. Six participants were invited by researchers from four different organ procurement organizations, and 2 participants were invited through a friend. Two of those invited decided not to join due to conflicts caused by scheduled duties in the operating room and schoolwork. Six participants were thus included in research work.

Data Collection
Individual face-to-face in-depth interviews using a semi-structured questionnaire were used in this research. In-depth interviewing is a flexible guided method that allows the researcher to lead an open conversation and does not limit participants in terms of sharing so that data collection is even more interactive. A semistructured interview outline was designed using literature review and pilot study and was reviewed and refined with the advising professor prior to release. Six participants were interviewed at one time without time limit. On average, 80 minutes was taken for each interview. Notes were taken to record the entire nonverbal signals of participants. During interviews, the researcher had bracketed preconceived notions to avoid interjecting subjective ideas into discussions.

Data Analysis
Data were analyzed using content analysis. After interviewing participants, descriptions of their experiences were transcribed into written text, and then researchers organized the significant volume of disorganized thoughts, comments, and observations before summing up the essential elements related to the study. These elements were categorized to describe in a concise format the meaning of text content.

Rigor of Study
According to Lincoln and Guba (1985), basic research helps transform abstract beliefs into scientific research, providing results in terms of qualitative research that can be consulted and contrasted in a form that is credible, transferable, dependable, and confirmable. All criteria were followed in this study, as will be described in the next paragraphs.

Credibility helps ensure that collected data represent true values. Researcher Y. J. Wang has studied qualitative research methodology and is capable of analyzing collected data and interviewing participants. A pilot study was also conducted to modify the interview guide, and regular meetings were held with a panel of experts in qualitative research methodology to discuss the integrity and appropriateness of data collection methods. Interviews were tape-recorded and transcribed verbatim and double-checked with the coresearcher to ensure text accuracy. Transferability is necessary to ensure that collected data and emerged results can be effectively inferred to other situations. In this study, even with only 6 participants, thick data with rich narratives were collected and analyzed to ensure transferability. Dependability requires that the researcher use a valid method to collect data. To avoid the
loss of or confusion in collected data, data were recorded and collected by the researcher, and nonverbal communication notes were written immediately. Confirmability refers to study objectivity and neutrality. To avoid researcher prejudice, during the process of analysis, the principal researcher strictly obtains hermeneutic circulation by reading the text multiple times. Study themes emerged through data analysis in research meetings held twice a week.

Ethics of Study
In research on human beings, informed consent is the most basic principle to follow during the research (Kao, 2001). Also, this research had the permission of the school's institutional review board. The interviewee was invited either through a personal call or personal visit from the researcher, at which time interviewees were also informed about the purpose of research and interviewee rights. Before continuing further, the participant needed to sign a consent form for participation. Because the research touched on aspects of participants' private lives and feelings about work experiences, personal information was separated from the text. Personal names, name of places, and other identifying information in the text were deleted or substituted by dummy words.

Results
Through content analysis, two parts were identified: Part I presented participants’ experiences and feelings of organ procurement. Part II addressed the issue of self-care, that is, how participants adjusted themselves to their work.

Part I: About the Organ Procurement Experience

A journey begins at learning
The very first time in life is always very unforgettable. Because of lack of experience, one can typically only follow instructions given by seniors. Although tension is associated with feeling ignorant, such is the necessary first stage of the learning journey, as Nurse C said,

Actually, I didn’t know what I was doing during through the whole process of organ procurement. All I remember was constantly chipping away at ice. (C-027)

Organ procurement needs a professional team to guarantee transplantation success. Senior staff should be well trained to prepare everything necessary for the operation. If preparations lack comprehensiveness, operators will vent their anger on nurses, which may give new nurses a terrible impression. One nurse mentioned,

I only remembered I was taught by a rather careless senior nurse at my first organ procurement. She didn’t know what the operation needed or the operation procedures. It caused me to be the target of the doctor’s anger. (F-014-016)

If the senior provides adequate leadership, the organ procurement experience should be more positive and may even offer additional learning opportunities. One nurse recalled,

At my very first time, I followed a senior staff to another hospital to learn how to harvest organs. The senior treated me kindly so that I had a good experience of organ procurement and the feeling that it was easy. (D-017)

Whether the participant wants or not, she needs to follow her senior on the start of her professional journey.

Feelings of slaughter
The progress of organ procurement is really terrifying; no one can imagine the process without personal experience. Descriptions of organ procurement focus on the merciless and cruel nature of the process, engendering feelings of being a butcher. Even senior staff mentioned this:

Once, another hospital came to receive a pancreas. They threw out the intestine and colon, which made me feel so cruel and heartless. (E-043)

She also stated,

After taking away what they needed, nobody cared whether the wound was still opened and just walked away. (E-018)

There was another nurse who felt the same way:

Mostly, donors donate their heart, liver, and kidney, if conditions allow. This requires the making of an excision line that extends over the chest to the lower abdomen, spreading all organs out just like a meat stand. (F-022)

Perioperative nurses are human beings. Although they assist doctor’s regular operations every day and are used to seeing human organs, it is still hard to avoid feeling compassion and disquiet when seeing such scenes. There is a conflict between morals and work responsibilities.

After experiencing the process of organ procurement, attitudes in staff already begin to change, especially in those newly transferred. Some may pay more attention to this problem and try to solve it, and some may be still trying to discover this unfamiliar field.
**Doubts about death**
During organ procurement, questions about life emerge suddenly, with nobody showing loving care or respect to the donor. Participants wondered if such was because the donor had already died. After removing organs forcefully and quickly, all vital signs cease. Cutting arteries to the heart signals the arrival of death, but it is often incomprehensible that such a process occurred before one's own eyes. Questions about whether the donor was really dead when he or she arrived naturally arise. Participants become concerned that they are participating in donor murder and question the difference between natural death and brain death and wonder, if the donor's organs had not been removed by force, would he or she have lived? One participant shared her experience of organ procurement from a prisoner:

*The experience was psychologically draining. There was plenty of time to prepare for the operation, so we saw the prisoner's execution. It was not a very good experience. After that, every hospital came to get what they wanted. They cut the corpse in pieces. He was alive one moment and then dead the next. Even the anesthesia dissipated immediately. I suddenly realized that the donor had really passed away. Should he die like this? (B-014)*

Another nurse stated,

*What I feel about organ procurement is that it is the equivalent of taking the breath away from a human being. It's nothing like my grandmother, who died naturally. I had the feeling that I am like a slaughterer who rips organs from the victim. I was emotionally troubled for 2 or 3 days because I thought if I had rescued him at that time, he might be still alive. (B-017)*

Some participants even believed in the afterlife or spirituality. Nurse B stated,

*It was twice I could sense a spirit. There was someone who followed me home. I felt I carried something very oppressive. I was unable to fall asleep at night; I went to the temple to ask a master and told him what happened to me recently. The master told me I have super atheism and sensed the donor's spirit. The spirit wanted something from me. Because I have done charity, they think I could help them so they came home with me. Since I now understand this, I always tell donors not to come home with me because they will lose their way home. (B-036 and B-037)*

Nurse D has similar experience too:

*I remember that I helped a colleague with body care (corpse care) for the first time. It was unfamiliar to me. I was silly to do what the senior told me to at that time. I might have said something impolite to the dead and I wasn't aware, so I got very sick the next day. I really believe in spirits, even though I have never seen them, but I just can sense they exist sometimes. (D-045)*

The special sensitivities of some nurses make them able to feel special situations. After seeking religious assistance, they identify the reason and solve the problem.

**Death is a new beginning**
Participating in organ procurement work gives one a direct view of real stories in real-life situations. One nurse witnessed a family falling apart during the course of a mother's death:

*Once, I needed to take the donor to the operating room from the ICU. She was a single mother who raised three children on her own. As I remember, she was only around 40, and the oldest child was just in primary school. All three were still very young. She was injured while working, and when she reached the hospital, she was already dead. What I saw there were three children around their mom. I cried and thought about the future of those children. I just felt helpless because there was no father or mother to depend on. I was sad that time. (F-006)*

Although witnessing the death of a donor is really sad, the effect of taking an organ and giving it to a dying patient is very powerful because residual vitality can infuse new value into someone's life, which is the true meaning of organ donation. One nurse described,

*I was very moved when I handed over the heart that time. When I took it out from the heart donor, it was still beating slightly, which made me feel that life can carry on by living in another body to have a new value in life. (A-004)*

**Part II: About Self-care**
Skilled and specialized knowledge is needed in organ procurement and organ preserving to keep the organ in the best condition possible during transplantation. Every link in the organ transplant procedure is extraordinarily important, which places all team members under extraordinary pressures, as Nurse B declaimed:

*The experience of the early organ procurement remains with me; there is no difference between a regular patient and donor when they have anesthesia. It means I confuse the donor with my...*
daily work as an anesthesiologist, which makes me feel down. (B-018)

To recover from the scene of death and resume normal daily work, people begin to look for self-care methods. Six such methods were identified in this research:

1. Facing the problem, thinking, and adjusting:

   In the end, we still need to face the problem so I will start to think in a positive way, and slowly adjust myself. Things will get better and better. (B-020)

   Behavior is a combination of thinking and activity, which means thinking positively can positively affect attitude and behavior.

2. Engaging in leisure activities:

   Pressure is unavoidable, so having some leisure activity or sport can improve the situation. Otherwise, I will have a breakdown, with which I have personal experience. (D-047)

   For me, I will read some books to reconcile unpleasant feeling or do some housework to consume my physical energy in order to improve my mood. (B-019)

   Workouts can induce endorphins, which can improve psychological well-being.

3. Holding religious beliefs:

   I have heard some people will go to temple after being with a donor or a dead person. If they don’t do this, they will feel uncomfortable. (A-018)

   Religion is important to most of people, and religious activities can improve psychological well-being.

4. Separating work from private time:

   It is just work. I will not think of work while off duty. (A-019)

   Although this does not represent a good way to release pressure, such a method is used in this field.

5. Continued self-training:

   Our working environment crowded, and it is difficult to get in touch with others. So, I think if we continue studying, we can learn more from others. (F-074)

   I learned that death is a natural part of life, which made me feel less scared of what I have seen. (B-038)

6. Sharing:

   Sharing is a good way to release our stress. Expressing feelings means you have reorganized thoughts and reconstructed a new meaning. (B-048)

   Everyone may, more or less, meet setbacks and experience pressure on the job. How to deal with such and how to face related pressure can really be based on the individual. All methods mentioned represent those which participants actually used in their life and which earned positive results for the practitioner.

**Discussion**

This was the first study in Taiwan to explore the experiences of nurses with organ procurement. Results showed that the first experience with organ procurement is unforgettable and full of tension, stress, confusion, conflict, and guilt. Even more, they experienced life and death, the strike of vital power, and the cruelty of death. Often, the excision wound of the donor is from the chest to the lower abdomen, which is a very big wound that exposes all intestines and organs. It appears terrible and merciless. Numerous studies have pointed out that, in witnessing donor death and participating in organ harvesting, the operating room transplant team may see themselves as facilitators in the donor’s death, giving them feelings of guilt and added pressures at work (Cater-Gentry & McCurren, 2004; Ko, 2000; Regehr et al., 2003). It is thus no wonder that Nurse B became fearful of seeing people lying on the operation table and being anesthetized as they reminded her of the donor lying on the table before life was taken away. Also, Nurse F expressed that she could not bear the scene of organ removal and stated that she, if given the choice, would chose to assist the recipient. In conclusion, researchers found the initial fear held by perioperative nurses of organ procurement derived from their perception that the donor’s death was not natural and very unlike the death of a patient with illness. This finding matches that of Regehr et al. (2003), who found that perioperative nurses hold contradictory ideas regarding the donor’s death in contrast to patient death in general. Perioperative nurses work to convince themselves that participating in donor death is a good thing and that there is nothing unfair to the donor. The reason they must do so is that the donor still shows vital signs when he is sent to the operating room and that death occurs only at the time the aorta is cut. Matching natural death to artificial death itself is a task replete with contradictions. It is little wonder that participants have uncomfortable feelings regarding assisted death.

Nurses are called “angels” because they think of the patient before themselves and try to perform their duties with as much devotion and sacrifice as Florence Nightingale. As time progresses, the medical system will be required even more to show “specialization,” which means being capable and efficient at work and not allowing private feelings to affect professional performance (Tsai & Li,
Witnessing the death and the process of organ procurement is uncomfortable and may cause permanent trauma (Wainrib & Bloch, 2001). Although organ donation, as a way of saving lives, remains a noble and kind thing to do, perioperative nurses still need to conquer their fears. Under such a situation, they must find their own way to adjust their feelings. Otherwise, they may be isolating themselves gradually and numbing their feelings toward everything and adopting negative thinking toward experiences. If it gets worse, psychological problems may result. Thus, the loss and sadness felt by staff members in special units must be faced or dealt with by the medical system (Yan, 2004). In terms of adopting an appropriately healthy attitude, Nurse B said that “thinking positive is important!” She emphasized that organ harvesting is not so terrifying. Learning and knowing more things about death will help change your thinking in positive ways and accept such ideas as donated organs are gifts meant to save others’ lives. Thus, this study shows that self-care among participants is an important factor in their adjustment. It will influence their attitudes toward death. Thus, Nurses B and C learned to accept and face death calmly. Other participants seem to still be in the process of adjustment, trying to segregate themselves temporarily from their work. Nurse E, who completely removed herself from such issues, is a notable exception.

Studies conducted in Western countries found that study participants had their own ways of self-care, which were praying for the donor to decrease nurse discomfort, thinking positively about the action in terms of saving another’s life, and isolating oneself from work to feel numb about everything (Regehr et al., 2003). Distancing oneself from work is a finding directly reflected in this study. Such represents a defense mechanism that protects us from psychotrauma, a common phenomenon in general practice nurses as well (Maryse, 1998). This subject proves that professional help in the workplace is important and that more attention should be paid on this issue.

An interesting finding was that the result highlighted the differences between Taiwanese culture and Western culture. Taiwanese have grown up on many popular legends, which terrified us into not swimming or avoiding outdoor activities during July (Ghost Month; Chang, Y. S. (2007). A study about the concern on life and death from Taoism Pudu rite at Kaohsiung area. Zhong Xi General Education Study, 4, 177–218. (Original work published in Chinese)). These stories are grounded in belief in a pervasive supernatural world with rules that make many afraid of becoming a scapegoat for ill fortune. In our study was a nurse who claimed to have a special sense of the spirit world. She sought the assistance of religion and developed a coping strategy around such. She emphasized that sharing such stories was not intended to persuade others to believe in spirits but rather simply to share a deeply personal feeling. Most nurses in our study said that they would go to a temple following contact with a dead person as a ceremonial way of decreasing feelings of anxiety and fear. Similarly, although Westerners do not believe in spirits, findings showed that they frequently would scrub their bodies to try and remove “dirty” things and uncomfortable feelings after work (Regehr et al., 2003). Such ceremonial behavior shares a similar meaning with how such things are handled in Taiwan.

Conclusions
Organ donation is a taboo in Taiwanese culture; especially as such relates to death. This is an important reason there has been minimal research done on organ donation in Taiwan. This study presents the experience of organ procurement from the perspective of perioperative nurses in terms of their feelings. Research tried to uncover the phenomenon of organ donation to make people put greater attention on this issue. Of the few literature references related to the experience of organ procurement worldwide, none originated in Taiwan. This study showed that uncomfortable feelings arise with each organ procurement experience. The health institution may play an active role to help staff adjust to the challenges and psychological pressures. Limitations of this study include the recruitment of only 6 participants, which were insufficient for content analysis. Recruitment difficulties arose due to the necessity of including only experienced perioperative nurses able to share their own self-care experiences. Also, their varied shifts made it even more difficult to secure appointments with perioperative nurses so that there was only one interview conducted with each, during which the researcher asked them to talk freely on topics they wished to share. Because the researcher was also a member of an organ transplant team, all concepts regarding organ procurement were bracketed before conducing analysis. Even so, the study may still be subjective.

In the future, the authors hope that research into organ donation may be continued and broadened to include various organ transplants, the psychological reaction of different medical personnel, and the psychological reactions of the donor or recipient family members to continue contributing to society.

References


手術室護理人員參與器官摘取之經驗

王宜人  林綺雲*

背景
在器官移植過程中，手術室護理人員是協助器官摘取的重要成員，並且在器官摘取的過程中會目睹捐贈者的死亡，這樣的經驗與感受尚未被發現與討論。

目的
本研究企圖瞭解這些護理人員在參與器官摘取的過程中的經驗、包含特殊事件、感受及自我照顧之道。

方法
本研究採用質性研究的方法，經由立意選樣，以半結構式訪談大綱，面對面訪問北區移植醫院的手術室護理人員並進行文本資料內容分析。

結果
研究結果可以分為兩個部分，一是關於器官摘取的經驗，包含：器官摘取工作的旅程是由學習開始，感覺自己像是個屠夫、死亡的存疑、以及理解到死亡是另一個新生命價值的開始。另外，受訪者表示自我照顧之道為面對問題，適當休閒活動，借助宗教信仰，將工作與生活分開，繼續學習及分享等。

結論
研究發現部分護理人員因為目睹捐贈者死亡而有不舒服的感受甚至造成創傷經驗，未來可以進一步瞭解其創傷經驗與協助其自我照顧。

關鍵詞：器官捐贈、器官摘取、手術室護理人員、自我照顧。