

The Family Support of Emergency Nurse that Become Clear from the Relation Between Acute Disturbance of Consciousness Patient and the Family

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family
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touch
communication

ABSTRACT

The purpose of this study was to find the family support methods for emergency nurse from the relation between the patient and the patient's family. The study method was the qualitative descriptive method. The object were three acute disturbance of consciousness patients and their each family. The data collection went in critical care center of ICU.

The field description result : The family took especially the reaction of patient's eyes. The family touched the body of the patient while having special feelings for the patient. And the family alternated between hope and despair from subtle change in the patient and the explanation of the doctor.

Emergency nurse has to do those as follows. i) to let the family notice by themselves that to touch the patient is important for the communication between them. ii) to judge the time of the family intervention by observing the relation of the patient and the family iii) to notices early the change of the consciousness level by observing the slight reaction of the patient that only the family can know. iv) to plan and do the care with the family v) to explain the condition of the patient to the family, on the basis original conditional understanding of the family.

I. Introduction

Emergency medicine started in Japan in 1963, and the first, second, and third emergency medical system was developed in 1977 in order to cope with the increase of sudden illness and a shortage of hospitals that admit critically ill patients¹⁾. The system of emergency life-saving technicians was established in 1991, finding a new direction of prehospital care that provides initial treatment to emergency patients who are in a state of cardiopulmonary arrest or disturbance of consciousness²⁾. Then, the knowledge and techniques of emergency nursing ranging from emergency skills to the nursing of mental aspects of patients in a crisis situations have developed, and the fostering of emergency nurses started in 1995 in order to put in practice their medical skills in a variety of situations³⁾. In 1997 17 certified nurses in emergency nursing were certified for the first time in Japan⁴⁾, so that the spread and importance of roles nurses play in critical care centers have been recognized.

Nurses in critical care centers often face patients nearing death. Their family are shocked and stand motionless when they meet unconscious patients for the first time. I was often not able to decide how to get involved in them as a nurse in such a situation. Intervention using crisis theory is proposed as a method of family intervention for patients in the acute stage. Fink⁵⁾, Aguilera and Messiek⁶⁾, and Yamagiwa⁷⁾ developed crisis theory. Fink notes that crisis process starts from the stage of shock, which shows the decline of the ability to think and understand one's situations. Hieida and others⁸⁾ clarified factors leading to family crisis and the effect of family intervention based on Aguilera's and Messiek's crisis models. They pointed out that family members of patients immediately hospitalized fall into an emotional crisis due to the image of medical emergency centers, the lack of information, the change of a patient's appearance, and the failure to know what kinds of medical procedures are taken. Therefore, they argue

that the provision of information which helps them to have an image of patient's conditions before seeing him/her is a useful intervention for crisis prevention. Yamagiwa suggests the need to engage in research on the family of patients in the field of emergency nursing because they tend to be in a state of psychological and social crisis when they observe patients who develop disease suddenly and reduce the level of consciousness⁹⁾. There are many studies that consider family members of a patient are "in a crisis situation" on the study of family in the field of critical care. Medical professionals must explain to them patient's conditions which change by the minute. How do they understand their explanation and engage with a patient? For answering these questions I considered it necessary to understand the family of patients by examining how they perceive the actual situations in a hospital.

There are many studies on family's needs on family understanding^{10), 11), 12)}. Yet, they focus only family members, failing to see the problems through the lens of their involvement with patients.

There have been few studies that attempted to clarify family members' involvement with patients with impaired consciousness by participant-observer study and interviews because it is difficult to focus on them in a tense situation of emergency medicine.

Therefore, in this article I attempted to examine family members' involvement with patients immediately after they were transferred to a critical care center by putting myself in emergency situations. We need to understand characteristics of family members' involvement with acutely ill patients with impaired consciousness. I consider that this study would be helpful for understanding how emergency nurses should assist them.

II. The Purpose of Research

This research aims to find out the things that need to take into account when emergency nurses engage in family support by analyzing family members' involvement with acutely ill patients with impaired consciousness transferred to a critical care center.

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III. The Definition of Terms

Family means a small group who conducts daily living together. In this study family refers to those who had parent-child or husband-wife relations with acutely ill patients with impaired consciousness and visited a critical care center for meeting them.

IV. Research Methods

1. Research Design

Family members of patients are shocked to see those who are in serious conditions in a critical care center and often stand motionless. They are in a perplexed state of shock after knowing that the foundation of intimate relationship between them collapsed. It is difficult to understand their feelings only by watching their behaviors from the outside. Therefore, I decided to conduct qualitative and descriptive research for deciphering their subjective experience.

2. Participants in the Research

Participants in this research were acutely ill patients with impaired consciousness and their family members who meet following conditions:

- a. a family member who engages with an inpatient who has suffered from disturbed consciousness for more than one day.
- b. a family member of a patient who cannot speak and write messages to communicate with others due to loss of consciousness.
- c. a family member who visits a patient every day.
- d. a family member who understands the purpose of research and agrees to participate in the research.

3. Methods of Data Collection

It took six months to collect necessary data by using following methods.

(1) Participant-Observer Study

R. Emerson noted that it is important to observe subjects from the inside by situating us in the midst of their living in order to observe and understand critical situations on their living¹³⁾. A critical care center focuses on saving lives of patients from immediately after they are admitted to it. I considered that I need to conduct a participant-observer study based on the ideas of R. Emerson for grasping what family members understand and engage with patients when they see the scene of emergency medical care. Therefore, I stayed in a hospital emergency room and observed how family members accept, feel, and engage with a patient who suddenly lost consciousness from the standpoint of him/her. In this way I conducted participant observation by the bedside of patients for grasping them from their perspective.

I stayed with the family of a patient since they arrived in a critical care center. The participant-observe study had been conducted during the period from when family members were allowed to see a patient to his/her discharge from hospital. It is expected that they might be disturbed by the situation, therefore, I created a relaxing atmosphere by the bedside of patients after observing their facial expression and behaviors. I stayed with them when doctors or nurses explained patient's medical conditions to them.

(2) Interview

I interacted with family members of a patient after they met a patient in order to let them describe their feelings. I was also involved with them by walking them until they get out of a critical care center for listening to their thoughts and anxiety in a different atmosphere. I asked them to have an interview after they started to talk to me. We used an interview room in a hospital for it. The interview length was less than 30 minutes. The content of the interview was as follows: (a) What did you feel when you met a patient for the first time?; (b) Did you change your attitude on doctor's explanation after that?; (c) How were you trying to see patient's disease?; and (d) about the things I failed to understand during my observation on them. I conducted an interview by allowing them to talk freely about anything. I recorded an interview when permitted.

(3) Records

I got permission to see patients' clinical and nursing records to gain information on patients' and their families.

4. Methods of Data Analysis

I analyzed descriptive data gained from participant-observer study and interviews. I extracted parts expressing acts at bedside and family's thoughts and feelings for patients gained from participant-observer study by focusing on patients' family members. Then, I examined descriptive data gained from interviews for deciphering how patients and their family interacted with one another.

This is a concrete procedure for analysis:

1. Rereading fieldnotes and interview data for grasping family members' involvement with patients.
2. I extracted sentences expressing their thoughts and feelings from the description of family members' involvement with patients. Then, I added interpretation on each situation from the standpoint of family members.
3. I added interpretation on what kinds of involvements family members engaged in and what are their meanings with a patient by adding interview data on the content of two.
4. Based on the data of one, two, and three, I restructured family members' involvement with patients in a chronological order (the first day of sickness at the day of admission to a critical care center). Then, I reexamined the scenes in which family members were involved with patients, based on their feelings and thoughts from their standpoint.

5. Reliability of the Results of Analysis

This research attempts to restructure subjects' experience in a thorough way. Therefore, I checked whether data collected from participant-observer study and interviews are insufficient or mistaken or not by getting confirmation from subjects. In addition, a research adviser supervised and the support group comprising five to eight researchers on nursing read collected data and examined their interpretation throughout the whole process of data collection and analysis in order to avoid making biased interpretation.

6. Ethical Consideration

This research was approved by directors of nursing in a hospital and a chief nurse in a critical care center under study. Subjects were those who gained permission to investigate from the chief nurse in a critical care center.

This research focused on patients and their family, but I

also got permission to mention the behaviors and responses of nurses and doctors when necessary in the fieldnotes of this study.

I just stayed by patient’s family as a staff member of a critical care center for a few days because it was expected that they were quite shocked about patient’s conditions. Then, I explained my positions and the purpose and content of this research to them after they started to ask doctors and nurses about patient’s conditions actively. I also told them that I had worked for a critical care center before, and I was going to give top priority to patient’s life. This explanation was conducted both orally and in a written form. I made the data anonymous and explained to them that I did not use them other than for this research. I also explained to them that they could freely participate in this research, cancel it, and did not have to talk about the things that they did not want to talk about.

I followed critical care center’s treatment policies and the methods of family care, and reported nurses to the things I could not answer family members’ questions. I also reported to a chief nurse important information I got from interviews with subjects after their approval.

In addition, I rechecked the content written in fieldnotes by asking them as much as possible.

V. Results

Outline of Results

Subjects were three acutely ill patients with impaired consciousness and their family members. Their family relationship was two husbands-and-wives and one parent-and-child (Figure 1).

The main characteristics of their involvement were as follows: 1. Family members received patient’s eye movement as his/her response; 2. They touched his/her body time and again as responses to their feeling; and 3. They realized patient’s recovery and imagined the worst situation from doctor’s explanation and patient’s slight responses.

In this article <<>>, “ ”, and ‘ ’ show aspects of family members’ involvement with patients, the words of family members, and my words, respectively.

The Description of Reconstruction

1. Receiving patient’s eye movement as his/her response

<<Mr. A (husband) received eye movement and tears of Masayo, his wife (patient), as her response to his words.>>

Masayo was lying down on the stairs of her home. When Mr A. founder her, she was snoring and unconscious. Her eyelids got swollen and the blood gushed from her nose when an ambulance arrived. There was no response to ambulance crew. In a critical care center she was diagnosed as basilar fracture, traumatic subarachnoid hematoma, zygomatic and

mandibular fracture, right forearm fracture, and cerebral infarction. Medical treatment started immediately.

She had suffered from diabetes. Mr. A brought her primary care doctor with him and observed her from head to tow while he talked to a doctor in a critical care center on the first day of sickness. Then, he started to whisper something about her ears. Yet, there was no response from her. Then, he said to her, “Mama, you understand me?” in a loud voice while touching her hand, and went on to say, “Doctor T. came to see you.” Then, a single tear slid down her face. Mr. A saw it and said, “She shed tears.” On the second day of sickness her friend since elementary school said, “Masayo-chan.” Then, she opened her eyes a little and gazed around. Mr. A was relieved to see her movement of eyes, saying that “her response was very good.” Then, he checked her eyes again by pulling her eyelids up.

In this way Mr. A took her eye responses such as her movement of eyes, tears, and eye-opening situations when he talked to her as her responses.

<<Mr. B (father) received the blink and look in his eyes as the responses to his words in his talking to a patient (his son).>>

Masaki, his son, fell from the second floor at a building site and hit him on the head and the lower back. He had consciousness when he was taken by ambulance to the hospital. But he was starting to lose consciousness and exhibited anisocoria, so that craniotomy for removal of hematoma was performed immediately.

On the fourth day of sickness Mr. B said to Masaki, “Hey, wake up. You’ve slept enough.” Then, his left eye opened slightly and moved from left to right. He said, “I now know he has consciousness,” and continued to call Masaki. On the ninth day of sickness, Masaki open his eyes and stared at Mr. B, who came to see him. Mr. B bowed to apologize again and again, saying “Can you hear me? I’m sorry. I’m sorry for letting this happen.” Then, he said at a distance from him, “Don’t look at me so sharply. He also said to him, “I’m apologizing. Don’t stare at me so sharply. You do not have to worry about your work.... Do you hear me?” Masaki was blinking as responses to Mr. B’s voice. He said to Masaki, “You hear me, Masaki. I’m sorry. I am really sorry for it. I had harsh words for you. I made you cause physical harm to you. I would not say harsh words to you again. I want to get injured instead of you if it is possible. Don’t stare hard at me, please. I’m saying I’m sorry. Hey, Masaki.”

In this way Mr. B took Masaki’s eye responses such as eye-opening situations, blinks, and sharp look when he talked to him as his responses.

<<Ms. C (wife) was glad to see Taro (her husband)’s eye-opening as his response in her talking>>

Taro said, “I want to drink cold water” after having lunch, so Ms. C handed the bottle of water to him. As soon as he drank it,

Figure 1 : Patients with Impaired Consciousness Hospitalized in the ICU of a Critical Care Center

	Interview				Patient		
	Sex Age	The number of interviews	Period	Relationship	Name	Past medical history	Disease name
Mr. A	male 65 to 69 years old	two times	11 days	husband-wife	Masayo female 60 to 64 years old	diabetes	basilar fracture and cerebral infarction
Mr. B	male 65 to 69 years old	two times	10 days	parent-child	Masaki male 30 to 34 years old	none	acute subdural hematoma and pelvic fracture
Ms. C	female 75 to 79 years old	two times	13 days	wife-husband	Taro male 75 to 79 years old	none	encephalopathy after resuscitation

he lost consciousness and fell down. Ms. C noticed that he did not breathe, so that she called ambulance. Ambulance crew performed cardiopulmonary resuscitation. He was diagnosed as encephalopathy after resuscitation.

On the third day of sickness he just opened his eyes without blinking them. His wife, daughter, and grandchild came to see him. His grandchild says, "Grandpa," then he nodded. His daughter said to him, "Dad opens his eyes." Ms. C moved her face close to him. As soon as she looked into his eyes, she said with a look of surprise, "Yeah, he opens his eyes. Taro, do you hear me?" She moved his hand over his face and checked the movement of his eyes, but he just opened his eyes without blinking them. On the tenth day of sickness, she whispered to him: "I came here with D-chan and E-chan." He immediately opened his eyes. Ms. C said, "You hear me," and smiled at him.

In this way Ms. C took Taro's eye-opening when she talked to him as his response.

2. Repeating the acts of touching patient's body as the thought of his/her family

<<Mr. A (husband) repeated flexion and extension movement of Masayo, his wife (patient)'s legs.>>

On the second day of sickness Mr. A understood that Masayo was in critical condition, so that he brought her intimate relatives and friends to a hospital and repeated flexion and extension movement for her while explaining her conditions to them. On the fourth day of sickness Mr. A said to me, "her joints would become stiff without exercise" while turning around her foot joints with strength. He then held her knees and ankles and repeated flexion and extension movement with all his strength. His daughter said, "Stop moving them so hard, Dad!" Yet, Mr. A continued to do it, saying emotionally that "flexing is good because it stimulates her muscle." I said to him, 'you are accustomed to moving legs.' Mr. A answered that "I took care of my mother with cerebral infarction for two and a half years." He helped his mother to change diapers and encouraged her to exercise. Based on this experience, he repeated flexion and extension movement for her. Mr. A has played golf for a long time and has won a golf championship in a senior division. He said, "I like to play golf very much. Legs are important for golf. Legs are really important." He loved golf so much that it became a central aspect of his life. He also does foot exercises and swing every day. He made it a rule to move legs, therefore, he continued to move her legs so as not to weaken her legs. On the sixth day of sickness he felt that her legs were gradually weakening. Her head moved up and down while he did flexion and extension movement for her, but he failed to notice it because he concentrated too much on her legs.

In this way Mr. A repeated to touch Masayo's legs with the thought that the flexion and extension movement of legs would lead to Masayo's recovery.

<<Mr. B (father) continued to press acupuncture points in the hand of Masaki (son).>>

On the second day of sickness Mr. B said to him, "Masaki, do you hear me?" while he massaged each hand alternately. I felt an urge to ask him why he massaged Masaki's hands alternately. Therefore, I said to him, 'You are massaging each hand of your son alternately whenever you came to see him. Why do you do it?' He answered, "I am pressing acupuncture points. I learned karate when I was young. My karate master taught me how to press acupuncture points, so I know many acupuncture points. This is the reason why

my attitude on illness differs from others. Others would not be able to understand me." He had an experience of curing his own disease by doing finger pressure, the technique he learned in karate. The thought that we can cure a disease by pressing acupuncture points came from his own experience. So, he continued to press his son's acupuncture points of hands with his thought that his son would also recover from illness by doing that.

In this way Mr. B repeated his acts of touching his son's hands with the thought that pressing his acupuncture points would lead to his recovery from illness.

<<Ms. C (wife) continued to touch Taro (husband)'s forehead and rubbed his legs.>>

Ms. C saw Taro immediately after being lectured that he was in critical condition by a doctor on the day he was transferred to critical care center. He had a tube in his throat to help him breathe and the mechanical sound of a ventilator was reverberated. In this situation Ms. C hesitated to come close to him. After a while she approached him nervously and called out to him, but there was no response. Then, Ms. C pulled off bath sheets and massaged his legs from an ankle to a knee gently. She looked at his feet and tried not to look at his face. She touched his forehead and called out to him again. Then, she moved around his feet and started to massage his legs again. Her daughter was standing on her opposite side. Ms. C handed a handkerchief to her and whispered, "Is he in a sweat? Wipe it with this, please?" Ms. C tried to hand it to her daughter for wanting her to check his conditions but she gave her surprised look. She noticed that her daughter was upset over it, so she put away the handkerchief and came close to him for checking his conditions by herself. Then, she touched his forehead again and said, "Otosan." She knew that his forehead was not moist and massaged his legs again.

On the tenth day of sickness Taro started to open his eyes when he was called. Ms. C massaged his legs, saying "Otosan," and said to me, "He moves his legs a lot. I think he feels heavy in his legs. He must also have a sore back because he always lies on his back." She then said, "he looks painful," and extended wrinkles between the eyebrows. She said, "his wrinkles disappeared as I extended them," laughing with her grandson. She thought that he had to move his legs actively with knitting his brows because his legs felt heavy. She continued to massage his legs in order to relieve his lassitude.

In this way Ms. C repeatedly touched his legs with the thought that it would relieve his lassitude.

3. Family members of patients realized their recovery and expected the worst by listening to doctor's explanation and observing a subtle response of patients.

<<Mr. A (husband) understood doctor's explanation and perceived Masayo (wife)'s eye-opening situations and movement of her legs.>>

On the fourth day of sickness a doctor said to Mr. A, "She also had a stroke, and the current level of consciousness suggests that her blood vessels are not completely blocked and there is a dribble of blood." Mr. A listened to it with a frown. He said, "I think she is in a difficult situation because her consciousness failed to come back in one or two days. She also can't open her eyes completely. I must take into account that she is severely diabetic." Mr. A, his son and daughter met her after a doctor explained her medical conditions to Mr. A.

Masayo slowly opened her eyes and tried to answer something when her son said, "Your eyes today is more open

than yesterday. You hear me?" He thought her conditions were better than yesterday from this situation. On the other hand, Mr. A understood that her conditions were serious because he got an explanation of her conditions from the doctor, so that he failed to notice Masayo's movement of eyes. He said to his daughter and son, "Do you see it?" and tried hard to look around her eyes. He could not believe that she moved her eyes, so checked the movement of her eyes by pulling her upper eyelid. His daughter said, "Daddy, don't do it. It hurts her," but he was thinking about the worst situation without noticing Masayo's subtle changes and his daughter's words.

On the sixth day of illness as soon as he stood at bed side, he said to me, "The doctor told me that her movement of legs has become smaller than ever before. After that he lifted up her legs, twisted and moved ankle joints up and down for observing the movement of her legs. He held her knees and ankles and repeated the flexion and extension movement with the hope that she might recover from illness.

On the eighth day of sickness she opened her eyes slightly and moved them when he moved her legs. Then, he said gently to me, "She would be transferred to F Neurosurgical Hospital on referral from the doctor. I guess I lucked out."

In this way Mr. A felt she was recovering and thought about the worse by seeing her eye movement, eye-opening situations, and the slight changes of the movement of her legs.

<<Mr. B (father) grasped doctor's explanation, Masaki (his son)'s responses when he talked to him, and the changes of his face and legs>>

The doctor said to Mr. B, "I'm going to treat him for saving her life," and performed surgery on him. After surgery he came to see Masaki and called out to him but there was no response. He despondently said, "How did this happen?" On the third day of sickness, he said to me, "I thought he slammed his hip on something at first because he retained consciousness. In the ambulance he said he had a headache, so his head was cooled. But it turned out this way." He considered that his son became unconscious due to surgery. Yet, the swelling of his face and legs has subsided as the days went by, and his legs started to move when Mr. B called to him. Then, he began to engage with Masaki with the thought that he was just sleeping now, and "he must become conscious in a week." On the fourth day of sickness Masaki had a fever of 38 degrees C. Yet, Mr. B said gently, "his condition is good today. The swelling of his face subsided and his face also looks good." On the fifth day of sickness he noticed that Masaki failed to breathe. So he said to me, "Masaki sometimes stop breathing." Masaki just started to practice removing a ventilator in order to breathe by himself. He often failed to breathe by himself, therefore nurses frequently came to check his conditions at bed side or through a monitor. A doctor told Mr. B that Masaki's high fever was not due to brain damage, therefore, even if Masaki failed to breathe, he said, "His eyes shined today, so he is good. I mean, his eyes were shining when I opened his eyes a little ago." Mr. B judged that he was good by observing his eye conditions.

On the ninth day of sickness Masaki's knees started to bend, and he was able to ride on a wheelchair with his knees pressed together. Mr. B felt Masaki was gradually recovering from illness. On the tenth day Masaki closed his eyes. Mr. B said, "Masaki" but there was no response. He said, "Did he become unconscious? I think he would be all right because his face looks different, but I'm worried. His face looks like the one when he sleeps, so I think it's OK. But I worried that

he might get unconscious again." Mr. B understood that Masaki's conditions were stable, but whenever Masaki failed to open his eyes when called, he started to worry that his condition worsened and he might get unconscious again. In this way Mr. B realized Masaki's recovery and the worse case by listening to the doctor's explanation of his conditions and Masaki's conditions such as edema in his face and legs, the subtle changes of leg movement, and eye-opening situations.

VI. Discussion

1. Family members touched patient's body since the first day of meeting.

They had communicated each other by using words, but they were at a loss over how to engage with unconscious patients who could not respond to their words. Then, they started to touch patients. It would be that they started to talk to patients through the acts of touching. Ichikawa notes that "The body as an object is not an object detached from a subject. In a case where I touch my hand, this touched hand is also a touching hand¹⁴⁾." In this way it is considered that family members interacted with patients through the acts of "touching" and "touched."

Three family members touched patient's bodies whenever they came to see patients by their own ways, such as massaging his/her legs, repeating flexion and extension movement, or pressing acupuncture points. Davis notes that "touching is the most fundamental communicative form as a human being¹⁵⁾." It is considered that family members in this study also communicated with patients by relying on their sense of touching patient's body. Nakamura mentions that "touching performs acts of holding and grasping things with the help of muscular sense and motion sense, and this is an act of grasping a total picture¹⁶⁾." It suggests that family members tried to grasp the whole situation of patients and know how things really are through touching.

Arthur W. Frank notes that "people's suffering can be endured by sharing it¹⁷⁾" through his own experience of cancer. It can be estimated that three family members also spent time worrying about how to engage with unconscious patients who could not communicate by using words which they had used before. It is considered that they endured the current situation by touching patient's body as a sharing of suffering with them. As Sato notes that "physical communication exists in intimate family relationship¹⁸⁾", the more family members try to communicate with patients, the more likely they touch patient's body spontaneously. Kashiwagi argues that smooth communication, whether it is linguistic or not, for mutual understanding is indispensable for the maintenance of communal relationship¹⁹⁾. Family members also touched patient's body by their own will from the first day of sickness for maintaining their relationship with patients. This act may look like a unilateral act of family members but it can be considered that an interactive form of communication between them is realized by the act of touching. As long as communication starts, the perception that both share suffering contributes to the maintenance of relationship between family members and their patients. For this reason, emergency nurses must encourage family members of patients to perceive that it is necessary for them to touch patients in a variety of ways for maintaining communication between them.

2. Family members' acts of touching patients has gradually changed.

Family members who met a patient for the first time spoke to him as usual and tried to grasp the current situations by looking at him/her. Yet, they soon realized that observation was not enough to do it after hearing the mechanical sound of a ventilator and the alarm sound that indicated an abnormality of patients. It is considered that they were forced to touch patients for knowing patient's situations. Ms. C was at a loss over how to accept Taro's conditions at first, so she timidly touched his legs. Mr. A engaged with Masayo at first with the thought that she would not survive. Nakamura noted that "touch is not only a skin contact but also a contact with life itself²⁰". Each family in this study is also considered to realize patient's life through the act of touching a patient.

Ms. C actively engaged with Taro by looking into his face and extending wrinkles between the eyebrows as Taro is being pulled back to consciousness. Mr. A noticed that Masayo slightly moved her legs when he touched them. Then, he moved her legs based on the method of strengthening legs acquired through his experience of caring for his mother and through his own hobby. As Ikegawa notes that "we can understand the world that patients experience by touching them²¹," family members understand the process in which they are becoming conscious gradually by touching their body.

Then, Mr. A noticed that Masayo's legs were weakening as the days went by, so he started to move her legs very actively. It would be considered that Mr. A engaged in "acts on the way of death in the middle of life²²" because he realized that her conditions were deteriorating.

Therefore, emergency nurses must understand that family members' acts of touching patients show that their feelings emerge as acts such as the act of ascertaining whether they are alive or not, and the act of realizing their recovery or death. For this reason, they must also observe family members' involvement with patients. They can judge whether family intervention should be actively conducted or family members' involvement with patients should be watched without intervention by observing family conducts.

3. Family members do not miss slight responses of patients.

It is considered that family members were not only shocked to see changed unconscious patients but also tried to grasp their current conditions by their own way which differed from the perspective of medical staff.

Mr. B regarded Masaki's stare as a glaring act. I argued that "some family members who engage with patients hovering between life and death intensify feelings of guilt and become traumatized as they meet them in a hospital over and over again²³". Mr. B thought back on his strict attitude toward his son and began to think that he was responsible for his disturbed consciousness as he met his sons in a hospital many times. Yanagida notes that through the involvement with brain-dead son "a wordless conversation can be continued by touching patient's chest which is warm and breathing. Only the second person who has cherished and shared life with him/her can experience it²⁴". In this way family member's response to patients is affected by peculiar past interaction between them.

Ms. C was surprised to the sudden occurrence of Taro who had not suffered from a serious disease. It is considered, however, that she tried to understand Taro's conditions

by his acts of putting his hand on his forehead when his conditions were not good. Suzuki notes that "each family member observes his/her physical and mental conditions one another daily, so they can respond to his/her subtle changes and detect an abnormal thing at an early stage²⁵". Family members regarded the change of the look in patient's eyes and the moist condition of his/her forehead at a meeting in a hospital as his/her responses. They had lived with patients together. Therefore, they observe patients with a knowledge that can be acquired only by living together (e.g., a patient tends to suffer from fever when he/she becomes ill and have peculiar eyes for others when something upsets him/her). One could consider that they capture the feature of patients in an unconscious way.

Nurses usually check the conscious level of patients based on Glasgow Coma Scale (GCS). They treat patient's conscious level as E-1 in a case where they fail to open their eyes when they are called and pain stimulation is given. Patient's response perceived by family members may not be treated as conscious response in GCS. Yet, checking patients' conscious level without failing to examine their responses that family members noticed would be helpful to detect their slight movement of eyes and a desperate response by using their arms and legs. It is considered that emergency nurses are likely to notice the change of patient's conscious level by consciously observing his/her responses which family members perceived.

4. Family members take part in care.

Family members came to see patients every day and shared the place with them. If they spoke to patients and touched their hands and legs, they responded to them by opening their eyes and moved legs. Milton Mayeroll notes that being in a place represents the actual involvement with others in the world, and this would be continually renewed and reaffirmed each time²⁶. Family members stayed at the bedside of patients and tried to have a new relationship with them through their responses. Nishimura notes that "the attitude that tries to stay by a patient is essentially an act of care²⁷". Family members continued to stay by patients whenever they came to see them in a hospital, and conducted a variety of acts such as acts of speaking to them, engaging in the flexion and extension movement, and touching their legs. As a reply to these acts patients opened their eyes and moved their legs. It is considered that this was created by family members' act of staying by patients.

Tachiban notes that "It is noted that consciousness is composed of two parts: external consciousness (such as pain) that can be comprehended from the outside and internal consciousness that cannot be shown in voices and behaviors. Then, from Toyokura's own experience that came back alive from penicillin shock, it is important to reassure patients by giving them an encouraging voice and hold their hands for recovering their consciousness²⁸". In other words, even unconscious patients can sense and perceive both auditory and tactile stimulation, thereby affecting their internal consciousness, which in turn may get them to become conscious. Kaetsu mentions that "in medical tests that involve pain patients become relaxed by speaking to and touch them²⁹". Many tubes are inserted into the body of patients with impaired consciousness. They lie down on the bed with the dominating mechanical sound. Therefore, they are in a terrible state of tension. In this situation family members'

acts of speaking to and touching patients help them to feel good and get relaxed, which in turn contributes to relieve their unvoiced pain.

For this reason it is considered that a patient is more likely to reduce his/her tension and respond to nurse's touching care by family members' acts of speaking to him/her. That is, it is recommended that emergency nurses should plan and carry out nursing care by cooperating with patient's family.

5. A Difference of Opinions on Disease Condition Between Patient's Family and Medical Professionals

The doctor explained Masayo's medical condition from cerebral blood flow, but Mr. A understood it from severe diabetes from which she suffered for a long time. Mr. B understood that Masaki was conscious in an ambulance but showed disturbance of consciousness after undergoing surgery. He also believed that shiatsu (finger pressure) cures his disease, so that he pressed acupuncture points in the hands and legs of Masaki in his hospital room. Even if doctors and nurses explain to family members the current medical condition and the future treatment in great detail, they tend to understand patient's disease situation based on responses perceived from the perspective of the previous daily life and the past medical history.

We look into other's eyes when we talk to them in everyday life. Mr. B must have also looked into Masaki's eyes when he spoke to him. Masaki's eyes shined, so that Mr. B was confident that his conditions were good and remained undisturbed although his breathing temporarily stopped. Mr. B understood Masaki's medical condition by looking at his eyes. On the other hand, nurses considered Masaki just to be a patient receiving subdural hematoma removal surgery because they did not know about him before admission to a hospital. Then, they carefully observed his general condition (especially respiratory condition) because intermittent arrest of breathing would deteriorate his clinical condition. This situation suggests that there is a great discrepancy of perspective between nurses and patient's family.

Kay Toomes argues on it that doctors are trained to perceive disease essentially as an aggregate of physical characteristics and symptoms, but patients experience disease in terms of influence on daily life³⁰. In this way medical personnel must realize that they tend to try to understand the condition of a disease from patient's physical symptoms. In addition, family members need to understand patient's medical conditions from their experience of staying with them daily. Watanabe notes that "family in a serious crisis tends to have cognitive distortion, so that the communication gap with nurses sometimes occur³¹." Yet, we must not only understand that patient's family members just perceive that one of their member is in a crisis but also have an inclination to grasp his/her medical conditions by their knowledge acquired through their living with him/her and their involvement with him/her at the bedside. In order to make Mr. B understand patient's conditions, doctors and nurses must encourage him to become conscious of a type of breathing on which he failed to focus by explaining that Masaki would suffocate from lack of air and cause the lack of oxygen in the brain if Masaki fails to breathe as Mr. B also become breathless if he holds his breath. In this way family members of a patient are expected to enhance their understanding of his/her medical conditions by explaining to them his/her current conditions with consideration of each family's peculiar understanding of

disease in order to let them have a new way of looking at it.

The Limitation of This Research and Future Tasks

The subjects examined were only three and their average period of hospitalization in a critical care center were just 11 days. In this research I attempted to stay by patients and their family members, observe family members' involvement with patients, think about the meaning of their acts, and describe what happened on them. My research adviser advised me to collect and interpret data precisely, and we held a series of discussion with members of the support group periodically. However, this research was conducted in a tense situation where subjects were in a state of shock. In such a situation it was sometimes difficult to estimate family members' feelings. Therefore, I asked them to talk about their feelings only when it was judged to be acceptable, and collected data mainly by observing their behaviors based on participant-observer study.

VII. Conclusion

This research revealed that there are three aspects of involvement: 1. Family members receive patient's eye movement as his/her response; 2. They touch his/her body time and again as responses to their feeling; and 3. They realize patient's recovery and imagine the worst situation from doctor's explanation and his/her slight responses. Based on these aspects this research clarified how family members engaged with patients and the following emergency nurses' technique of family support: (i) Encouraging family members to notice that touching behaviors are necessary to maintaining communication; (ii) Judging the timing of family intervention by observing family members' involvement with patients; (iii) Noticing the change of patient's conscious level instantaneously; (iv) designing and carrying out a care plan which can be conducted with family members; and (v) explaining patient's medical conditions based on family members' peculiar understanding of disease.

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