Experience of Patients on Prolonged Mechanical Ventilation: A Phenomenological Study

Uzun Süreli Mekanik Ventilasyon Tedavisi Alan Hastaların Deneyimleri: Fenomonolojik Bir Çalışma

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ABSTRACT Objective: The aim of the study was to determine the experiences related to mechanical ventilation (MV) and intensive care unit (ICU) environment of the patients who were on prolonged MV. **Material and Methods:** This was a prospective and qualitative research. Phenomenological method was used to collect and evaluate the data. The study was conducted with the patients who had been MV treatment for at least seven days in ICU between September 2004 and February 2005. The patients were interviewed with a semi-structured interview form and interviews were recorded on tape. The data were evaluated with Colaizzi's qualitative research analysis method. **Results:** Ten patients were interviewed in the research. The mean age of the patients was 49.9 ± 18.47; 7 were male and 5 had graduated from high school. Mean duration was 10.8 ± 6.4 days for MV, 44.2 ± 50.6 for ICU and 49.9±38.9 days for hospitalization. MV indications were respiration arrest or insufficiency related to medical or surgical reasons. Five categories and 14 themes were determined after the analysis of the interviews. Physical restriction, dependency, air hunger, thirst, pain, inability to talk and difficulty to be understood were described as uncomfortable and stressful experiences for the patients. Flexible family visits, positive thinking, praying, hope for survival, care by experienced and friendly ICU nurses were effective for coping with stressful factors related to prolonged MV and the ICU environment. **Conclusion:** Prolonged MV and ICU environment were uncomfortable and stressful experiences for the patients. Experienced ICU nurses have a key role in helping patients cope with this situation. Patient care should be based on a holistic approach and convenient coping methods should be supported. In conclusion, ensuring ICU nurses are aware of the results of such studies and including this subject in service training programs should be useful to increase the nurses' experiences.

Key Words: Ventilators, mechanical; patients; intensive care units; stress, physiological; interview

ÖZET Amaç: Bu çalışmanın amacı uzun süreli mekanik ventilatör tedavisi alan hastaların mekanik ventilatör (MV) ve yoğun bakım (YB) ortamına bağlı deneyimlerini belirlemektir. **Gereç ve Yöntemler:** Bu çalışma prospektif ve niteliksel bir araştırmadır. Verilerin toplanması ve değerlendirilmesinde fenomonolojik yöntem kullanılmıştır. Çalışma Eylül 2004-Şubat 2005 tarihleri arasında YB ünitelerinden az yedi gün MV tedavisi alan hastalarla yapılmıştır. Yarı yapılandırılmış görüşme formu kullanılarak hastalarla görüşülmüş ve görüşmeler teyp kaydına alınmıştır. Veriler Colaizzi'nin niteliksel araştırma analiz metodu kullanılarak değerlendirilmiştir. **Bulgular:** Araştırmada 10 hasta ile görüşme yapılmıştır. Hastaların yaş ortalamaları 49.9 ± 18.47 olup, yedisi erkek, beşi lise mezunudur. Ortalama MV süresi 10.8 ± 6.4, YB süresi 44.2 ± 50.6 ve hastanede yatma süresi 49.9 ± 38.9 gündür. MV endikasyonları tıbbi veya cerrahi nedenlere bağlı solunum durması veya yetersizliğidir. Çalışmada görüşmelerin analizi sonucu beş kategori ve 14 tema belirlenmiştir. Temalarda fiziksel kısıtlılık, bağımlılık, hava açlığı, susama, ağrı, konuşamamak ve anlaşılamamak hastalar tarafından rahatsız edici ve stres verici deneyimler olarak tanımlanmıştır. Esnek aile ziyaretleri, olumlu düşünme, dua etme, ümidin sürdürülmesi, deneyimli ve güler yüzlü YB hemşireleri tarafından bakım almak, hastaların MV ve YB'ye ilişkin stresleri ile baş etmelerinde etkili olmuştur. **Sonuç:** Uzun süreli MV tedavisi ve YB ortamı hastalar için rahatsız edici ve stresli bir deneyimdir. Bu deneyimleri ile baş etmelerinde deneyimli YB hemşireleri anahtar role sahiptir. Hastalara bütüncül bakım anlayışı ile bakım verilmeli ve hastaların uygun baş etme yöntemleri desteklenmelidir. Ayrıca YB hemşirelerinin bu gibi çalışmaların sonuçlarından haberdar edilmesi ve hizmet içi eğitim programlarında konuya yer verilmesinin hemşirelerin deneyimlerinin artırılmasında yararlı olabileceği kanısına varılmıştır.

Anahtar Kelimeler: Mekanik ventilatör; hastalar; yoğun bakım üniteleri; stres; görüşme

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Intubation, which lasts for more than 48 hours, was generally defined as prolonged mechanical ventilation (PMV).[1,2] PMV requires most of the patients to stay in the intensive care unit (ICU) longer, thereby exposing them to the negative effects of the ICU environment.[1,3,4] Patients experience fear, agitation, air hunger, thirst, communication problems, pain, and loss of conscious and self-control during PMV treatment. The fear of uncertainty and inability to breathe and speak regularly also cause stress and pain. The inability of nurses to understand the non-verbal signs of the patients or inadequately interpreting them may influence the treatment approaches of the healthcare team and may even jeopardize the desired ICU results.[1-9]

Nurses are constantly a part of the ICU environment and are in the position to manipulate environmental factors to produce a setting that is more therapeutic. Thus, in order to increase the quality of life of the patients on PMV, nurses need to know their positive and negative experiences regarding PMV and factors creating stress in the ICU. Studies on the real experiences of patients during PMV and their expectations from nurses may be essential in planning a complete nursing care.

There are very few studies on how the patients really feel about PMV treatment using their own statements in the literature. Besides, such studies are also lacking in Turkey, which made us think that a research to identify the experiences and coping methods of PMV patients would be beneficial. The aim of this study was to determine the experiences related to mechanical ventilation (MV) and the ICU environment of the patients who were on PMV.

MATERIAL AND METHODS

DESIGN

We conducted the research in the intensive care units of Gülhane Military Medical Academy (GMMA) in Ankara, between September 2004 and February 2005 with a qualitative design and phenomenological approach in order to identify the experiences of the patients during the PMV treatment. The purpose of the phenomenological approach was to avoid generalizations and quantification and to understand the phenomenon as a human being experiences it.

SAMPLE

Patients included in the study were 18 years old or above, could speak and understand Turkish, had been on MV for at least seven days, had been conscious for at least some part of this period, were willing to participate in the study, had no physical disabilities, could remember their experiences during MV and could express themselves comfortably. There were 29 patients on MV treatment for at least seven days in various ICUs of the GMMA during the study. Exclusion criteria were outlined in the patient flow diagram in Figure 1.

The Local Ethics Committee of the GMMA approved the study protocol. Patients received information on the study at enrollment and signed the informed consent form.

DATA COLLECTION PROCEDURE

We used a semi-structured interview form to collect data (Table 1). The form was structured based on previous reports and the data obtained from a pre-interview with two patients.[5,10] We did not include the data from these two patients in the current study. Interviews were held at a convenient time within a week after the patient was discharged from the ICU where he/she had received the PMV treat-

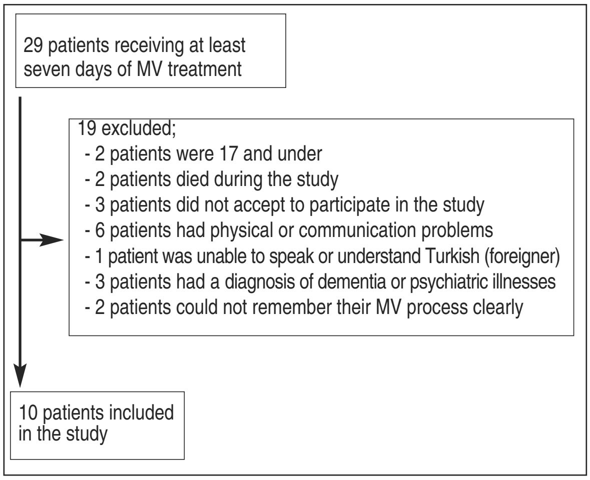

FIGURE 1: Flow of patients in the study.

TABLE 1: Semi-structured questionnaire.

1. What do you think about intensive care unit (ICU) and mechanical ventilation (MV) treatment?
2. We want you to tell us your positive and negative experiences during the MV treatment.
3. What were your experiences regarding to communication during MV treatment?
4. What was your opinion about the intensive care environment and how did the intensive care environment affect you?
5. What were the factors that caused stress during MV treatment?
6. How did you cope with these difficulties? What comforted you most?
7. Did your family experience any difficulty or communication problem during MV treatment?
8. What were your thoughts on the nursing care you received and the attitudes of the nurses?
9. What was your opinion on the explanations provided before the procedures?
10. What are your suggestions to nurses providing care to patients receiving MV treatment?

MV: Mechanical Ventilation

ment. Reports indicate that patients tend to remember their PMV and ICU related experiences for up to two years after they leave the hospital environment.[11-13] However, most of the patients have an inclination of expressing more of their negative experiences as time goes by.[11] We tried to assess both negative and positive experiences of the patients in our research. Therefore, we held the interviews as soon as possible after the discharge from the ICU to minimize the risk of forgetting and to make sure their memories were clear. We interviewed each patient separately in his or her own hospital room. We made sure there was no other healthcare staff from the clinic involved in the interview.

The interviews were held in a calm and comfortable environment and we asked the patients what they thought about intensive care treatment and whether they had experienced any problems during PMV. We encouraged the patients to share all their opinions and thoughts on PMV, whether positive or negative. Then we recorded the experiences and thoughts of the patients using the semi-structured interview form (Table 1). We avoided suggestions and leading questions during the interview. We requested the patients to explain the reasons of the problems they experienced, as they perceived them. The patients expressed positive experiences as well as negative ones. We recorded the data during the interviews using a tape recorder except for one patient. A patient, who previously rejected the recording of the interview with a tape recorder, later acknowledged the expressions to be written down. Thus, the data obtained from the interviewed patient was collected via handwritten notes taken by the researcher who was present during the interview. We transcribed the recorded data to a written consent form and then had the patients read and sign it. The duration of interviews ranged from 30 to 60 minutes.

We used the topics on the semi-structured form for reminding purposes. For example, if the patient did not mention a topic during the interview, we asked reminding questions like, “What do you remember about...” or “What were your experiences regarding…” Our first question to the patients in the beginning of the interview was “What do you think about the ICU and MV treatment?”. We observed that all the patients remembered most of their experiences during their stay in ICU and MV clearly during the interviews.

DATA ANALYSIS PROCEDURE

We reviewed all interview reports multiple times to analyze the data with the Colaizzi method of analysis (Table 1).[13] We organized the formulated meanings into categories and themes as described by Colaizzi.[13] When differences existed between the investigators regarding the appropriate categories and themes, they were discussed until a consensus was reached.

RESULTS

Ten patients who had been on PMV were interviewed to determine the experiences related to MV and the ICU environment. The characteristics of the patients were shown on Table 2.

TABLE 2: The steps in Colaizzi's phenomenological data analysis.

1.	Read all the participants' description of the phenomenon under study.
2.	Extract significant statements that pertain directly to the phenomena.
3.	Formulate the meaning of these significant statements.
4.	Categorize the formulated meanings into clusters of themes.
5.	Integrate findings into an exhaustive description of the phenomenon being studied.
6.	Validate the exhaustive description by returning to some of the participants to ask them how it compares to their experiences.
7.	Incorporate any changes offered by the participants into the final description of the essence of the phenomenon.

According to the interviews, we created common themes by merging similar statements for every category. Consistent with the questionnaire format, five categories and fourteen themes of responses were determined describing the PMV experiences of the patients (Table 3). Examples of specific expressions of the patients related to the themes were shown in Tables 4-9.

CATEGORY 1. PHYSICAL AND PSYCHOLOGICAL EFFECTS OF THE ENDOTRACHEAL TUBE (ETT)

Theme1. Physical Restrictions and Dependency

All patients (N= 10) stated that their movements were limited during MV in the ICU. Dependency and limited mobility for a long time were described as disturbing and stressful by the patients.

Theme 2. Air Hunger Feelings (Dyspnea, Anxiety, Fear)

All patients expressed presence of feeling air hunger and related stress at times during MV. Nine patients expressed that they thought the air from the ventilator tube was inadequate. One patient denoted that in his opinion the air from the tube was excessive. Another result of air hunger seemed to be fear of death.

Theme 3. Thirst

All patients denoted they felt thirsty. Four patients stated that they dreamed about water and that feeling of thirst was a very important problem.

Theme 4. Pain, Secretions, Suctioning

Half of the patients stated that they had a sore throat due to the ETT and neck and back pain due to

TABLE 3: Categories and themes of Prolonged Mechanical Ventilation experiences of the patients that emerged from the interviews

Category	Themes
Physical and psychological effects of ETT	Physical restrictions and dependency Air hunger feelings (dyspnea, anxiety, fear) Thirst Pain, secretions, suctioning
Communication experiences	Inability to speak and not being understood Communication methods
Upsetting experiences in ICU	Insecurity/uncertainty Noise and lights/sleep Other patients
Effects of nurses on experiences	Nursing skills/knowledge/attitudes Nurses' attributes
Coping	Relatives Religion/spiritual comfort/prayer Meaning of living with a machine

[1]ETT: Endotracheal Tube, [2]ICU: Intensive Care Unit

TABLE 4: Characteristics of the sample (n= 10).

Characteristics	**Value**
Age (mean ± SD*) years (range; 18-74)	49.9 ± 18.47
Gender	
Male	7
Female	3
Education	
Primary school	3
High school	5
University	2
Duration of MV (mean ± SD) days (range; 7-27)	10.8 ± 6.4
Length of stay in the ICU (mean ± SD), days (range; 9-121)	44.2 ± 50.6
Length of stay in the hospital (mean ± SD), days (range; 17-135)	49.9 ± 38.9
Reason for PMV treatment	
Respiratory arrest related to medical condition (multiple sclerosis and myasthenia gravis, pancreatitis, Obstructive sleep apnea syndrome)	4
Respiratory arrest related to cardiac problems	5
Trauma	1
Intensive care unit	
Medical	5
Surgical	5

[1]SD: Standard deviation, [2]MV: Mechanical Ventilation, [3]ICU: Intensive Care Unit, [4]PMV: Prolonged Mechanical Ventilation

TABLE 5: Examples of expressions of the participants on the physical and psychological effects of the endotracheal tube (Category 1).

Theme	**Comments**
Physical restrictions and dependency	“You are lying down without moving and you are totally dependent on others. You just have to trust those caring for you and you are most dependent on the tube (ETT). It's a really difficult and annoying situation but there's nothing you can do” (the 18-year-old male patient A).
Air hunger feelings (dyspnea, anxiety, fear)	“I felt short of breath when I first woke up but I wasn't strong enough to breathe myself. Fear of death was added to my current stress. I even thought that I would not be able to say goodbye to my family. The nurses helped me a lot in dealing with the condition. They held my hand and provided explanations. I felt myself very secure and relaxed afterwards” (the 67-year-old male patient G).
Thirst	“The presence of the tube prevented us from drinking water. Once the tube was removed they gave me a glass of water and told me to rinse my throat. I wanted to drink all of it but it was only a swallow anyway. Even that was satisfactory. I had difficulty in swallowing. It's very difficult to yearn for water. I was even drinking water in my dreams” (the 45-year-old male patient H).
Pain, secretions, suctioning	“I always had a sore throat like having a lump. They told me the reason was the tube in my throat and it would resolve after the tube was removed. I had unbearable back pain which was worse than my sore throat…” (The 63-year-old female patient I) “I had respiration problems when secretion collected in my lungs. I was praying for someone to aspirate me immediately. Suctioning made me relax” (the 29-year-old female patient D).

[1]ETT: Endotracheal Tube

being unable to move their head or body. Even though our patients expressed that suctioning was painful and irritating, they did not report suctioning practice as a source of stress. Furthermore, six patients pointed out that feeling of drowning when suctioning was not applied was more stressful than suctioning itself, and therefore, they often preferred suctioning.

TABLE 6: Examples of expressions of the participants on the communication experiences (Category 2).

Theme	Comments
Inability to speak and not being understood	"I did not realize I was not breathing by myself at first. I thought I needed to remove the tube from my mouth. The nurse held my hand. I tried to say a few things to her but I couldn't. I thought, 'What if they could never understand me anymore?' Although I had been provided with information on the matter beforehand, I kept thinking 'What if I never breathe again, how long will I stay here, how do I go to the bathroom, how will I communicate? I felt better and more secure when the nurse later explained how we would communicate again" (patient H). "I thought that I would never be able to talk again after MV. This thought was continuously in my mind during MV. I would feel better if I knew I could speak again" (the 65-year-old male patient C).
Communication methods	"I was continuously having nausea related to tube (ETT). I never had such nausea before and this was uncomfortable for me. I did not know how to make the nurses aware of my condition. They were not asking the right questions. However, I was seeking for some means of communication. I think pictures prepared beforehand for such conditions might have been useful" (patient D). "Being unable to speak at first increased my stress greatly. It was very difficult to express what I wanted. Afterwards, I realized that the nurses were skilled in communication. Although not all, they understood most of my expressions" (the 42-year-old male patient F).

[1]MV: Mechanical Ventilation, [2]ETT: Endotracheal Tube

TABLE 7: Examples of expressions of the participants on the upsetting experiences in Intensive Care Unit (Category 3).

Theme	Comments
Insecurity and uncertainty	"There were other patients in the intensive care unit. They stayed for 6-10 hours and left. I didn't know when I would leave. I felt stress. This unit is stressful because it is the intensive care unit. Anything could happen at any time. The patient's condition right beside me has gotten worse suddenly while waiting to be discharged. Our end is uncertain..." (patient G).
Noise and lights/sleep	"There was a constant sound and a humming noise. The noise sometimes increased a lot and you could not just tell them to be quiet. However, the care providers created the best possible conditions. You get used to it after a while anyway. It's not very important" (patient C).
Other patients	"The screams and groans were really unbearable. I tried not to hear them but this was impossible. These sounds made me afraid and remember death. They transferred me to a single-bed room because I was so upset and agitated. I only relaxed after that" (patient B).

TABLE 8: Examples of expressions of participants on the effects of nurses on experiences (Category 4).

Theme	Comments
Nursing skills and knowledge	"After 15 days in the ICU they left me alone, simply didn't care. It was as though they had given up hope and this mad me very sad. I expected nurses to be more professional. I think they should have cared for me fully till I died" (patient D). "Nurses must know to use MV better than anyone. They are the first to intervene when the alarm sounds. I panic when I hear this sound" (patient B).
Attributes of nurses	"We learned how hard and self sacrificing it was to be a nurse and weappreciated them more than we did before" (five of patients). "I used to think that the hardest job was mine. Now I know nursing is pretty much harder. They must really have loved their job" (The 34 years old male patient E-a policeman). "Nurse A was so sweet, smiling and sincere. She used to tell me that she would be with me during the night and this was enough to motivate me. However, nurse B had a sour face and was a hard personality. She nearly never spoke. If nurse B was on duty, I was feeling myself no different from a machine. She was interested more in the machine than she was interested in me long nights to make it short" (patient B). "Nurses are our closest friends in ICU. You are very dependent on them. The physicians spend a few minutes during the day with us but nurses are always here. Nurses understand our needs better and are friendlier" (patient J). "I thought I had died when I opened my eyes at intensive care. I didn't know where I was. I thought 'who are these people? What happened to me?' I felt very insecure. One nurse explained what happened while smiling. I always saw that nurse around afterwards. Having that nurse around made me feel comfortable. I started thinking of that nurse as one of my family members after a few days" (patient I).

[1]ICU: Intensive Care Unit, [2]MV: Mechanical Ventilation

TABLE 9: Examples of expressions on the coping strategies used by patients (Category 5).

Theme	Comments
Relatives	"My wife and children always remembered me as a vigorous man. I thought that seeing me weak and dependent on others and a machine to live would make them very sad. That is why I did not want them to see me in the ICU. They let my wife in without getting my consent. As I expected she became very sad and cried beside me. This was even worse than being dependent on a machine. Understanding the situation, they never let her in again" (patient E).
Religion/spiritual comfort/prayer	"I think all that I have lived through and my disease is a test. I thought I had to be patient and pray. I prayed even when I lost all hope, I thought of people I loved and that I should not let go. I frequently said 'I am a strong person. I can cope with this'. I felt this worked" (patient D).
The meaning of living with a machine	"I hated it (MV) because I was dependent on it. It was my greatest enemy. I also knew that it was the most critical treatment for me to live and I knew I therefore had to be friends with it" (patient F). "I have never been dependent on anyone in my life. It was very difficult for me to be immobile and dependent during MV treatment. I thought to myself what I had done to deserve this punishment" (patient B).

[1]ICU: Intensive Care Unit, [2]MV: Mechanical Ventilation

CATEGORY 2. COMMUNICATION EXPERIENCES

Theme 1. Inability to Speak and not Being Understood

All patients expressed communication problems at different levels. The most important problem, as expressed by the patients (n= 10), was being unable to speak and not being understood because of the tube. Most of the patients had particularly worried, but because of the positive attitude of the nurses, they indicated that their worries had declined. Some patients had worries for future speaking problems after extubation. These same patients also declared that providing enough information about the procedures would have decreased such worries dramatically.

Theme 2. Communication Methods

The patients stated that they generally had difficulties communicating at first. Patients receiving care from experienced nurses had relaxed after a while although they had difficulties in communicating initially. Eight patients expressed that nurses generally preferred to communicate by using standard questions and that some nurses also used mimics, approving, and head nodding and written communication cards. Examples of often-used statements were "Do you have pain? Do you have nausea? You are breathing with the tube; put your hands off it". Six patients said that the nurses had a lot to do and had nearly no time to establish a better way of communication with the patients.

CATEGORY 3. UPSETTING EXPERIENCES IN THE ICU

Theme 1. Insecurity and Uncertainty

Eight patients stated that MV was necessary and they had generally felt more secure during MV. However, unfamiliar ICU environment and staff, hi-tech equipment and isolation could have made patients feel insecure based on their own expressions. Five patients expressed that they had felt uncertainty about their medical treatments, period of stay in the ICU, reasons of MV dependencies and clinical surveys, and they had demanded for more information about the procedures.

Theme 2. Noise and Lights/Sleep

Seven patients described the noise in the intensive care unit and the constant light as "disturbing". They stated that this negatively affected their sleep and rest and it made them more agitated. However, although all patients complained of the noise and constant light, they did not think of this as highly important, and linked those complaints to the ICU setting.

Theme 3. Other Patients

Many patients with worse physical conditions had been treated in the ICU environment. The patients stated that what really bothered them were the groans, screams and painful expressions of the other patients. They said that hearing those sounds reminded them of death.

CATEGORY 4. EFFECT OF NURSES ON EXPERIENCES

Theme 1. Nursing Skills and Knowledge

Eight patients thought nurses were competent on procedures of patient care in the ICU such as drug administrations, monitoring, utilization of medical equipment, alarming, and suctioning. They stated that they were especially pleased with the explanations provided before the procedures as they made them relax. Six patients stated it was necessary that nurses be experienced regarding MV. They also stated that nurses with developed skills made patients feel relatively secure.

Only two patients expressed negative thoughts about the skills and knowledge of the nurses. Those patients stated that some nurses were not adequately qualified for means of care and did not understand the requirements of the patients in general. These situations made them think that those nurses might not have sufficient knowledge and experience on ICU nursing (communication, medication, MV alarms, suctioning, psychological needs of patients, etc.).

Theme 2. Attributes of Nurses

All patients reported that most of the nurses were friendly and helpful with a few exceptions. Patients also pointed out that this kind of behavior supported the feeling of safety, and decreased the negative effects of MV in the ICU. Another major expectation was having a nurse nearby in order not to feel lonesome. Most of the patients reported that nurses informed the patients about the treatment procedures properly and in a satisfying manner. All the patients wanted to learn if their families had been informed on their condition. The major expectation of patients from nurses was a friendly and sincere attitude in providing care. In this section, our patients evaluated the behavior of nurses during MV.

The common opinion of nine patients was that the attributes and approach of the nurses was important in feeling distrust. For example, they trusted nurses who smiled and were friendly and who explained things with a sympathetic voice more than nurses who were uncompromising and stern.

CATEGORY 5: COPING

Theme 1. Relatives

All the patients expressed that their families faced no difficulties while entering the ICU. Eight patients expressed that they were happy to see their families beside them. Most of the patients added that free entrance to the ICU for families without any restriction was constructive and supported their will for healing.

On the other hand, they also added that the fact their families saw them in the ICU environment in a disabled condition made them unhappy and was uncomfortable. Moreover, two patients said that they got upset because their families were permitted to see them in the ICU without their consent.

Theme 2. Religion/Spiritual Comfort/Prayer

Despite all the negative factors (air hunger, fear of death, being dependent, weakness, pain, thirst) and disturbances derived from the environment (light, noise, patient groans, foreign environment), the most effective coping methods were “positive thinking, praying and constantly hoping that it would get better”. Patients also stated that thinking of their loved ones usually made them feel better.

Theme 3. The Meaning of Living with a Machine

According to all patients, PMV treatment represented a thin line between life and death. They both hated MV and thought it was necessary for them to live. A patient added that assuming MV as a friend helped coping with the negative effect. Some patients tried to understand the meaning of their present situation by linking it with their past lives. Some patients thought that living dependent to a machine was a punishment while some other patients thought it was an outcome of their destiny.

DISCUSSION

In our qualitative study, all patients expressed discomfort and stress about physical restriction and dependency. The most important factor, which makes patients feel themselves physically restricted and dependent, was ETT. Physical restriction and dependency are reported as the most important sources of stress in MV by other studies.[5,6,14-16] The physical restrictions and feeling of dependency even led some patients to question their lives and to perceive this as a punishment for their past in our study. Thus, we suggest that cultural and religious beliefs play a role in such thoughts. Travelbee stated that the reaction of patients to illness was influenced by their cultural background and beliefs.[17]

Experience of sore throat and neck/back pain related to ETT expressed by our patients might have appeared because of being dependent to bed for long periods due to PMV and limitations in changing body position. In other reports, most patients expressed experience of sore throat related to ETT.[1,14,18-20] Sprays for throat pain and appropriate positioning for neck/back pain can be suggested to reduce pain.

Thirst is reported as one of the most discomforting factors in our study and in similar studies.[1,19,20] Frequent oral care and moisturizing the oral cavity can be suggested to overcome the discomfort related to thirst.

Claesson et al showed that suctioning was difficult and stressful for the intubated patients and caused chest pain.[18] However, although most of our patients felt pain and discomfort when being suctioned, interestingly they preferred to be suctioned frequently in our study. This may be due to the air hunger and fear of death experienced by our patients. The long-term stay of our patient group resulted in increased secretions. Another reason for the patients' desire to be suctioned may be inadequate suctioning performed by the nurses despite increasing secretions. In addition, this may be attributed to the inadequate knowledge or skills of the nurses to assess the respiration of the patients to determine the appropriate intervention. Nurses may consider suctioning a disturbing procedure for the patient but increasing secretion may cause important complications like lung collapse. Nurses should perform suctioning as required. That may help to reduce complications and comfort the patient.

Although most patients believed that MV was essential for their lives, they felt uncertainty and insecurity about their clinical progress in our study. Once again, the patient pointed out to the importance of being informed by the nurse. We suggest that informing patients according to their specific needs properly helps reducing the feeling of uncertainty and insecurity.

Studies on the noise level in the ICUs have shown that the noise levels were high and disturbing for patients.[1,21] Our patients also reported that they were disturbed by the noise and the constant light. However, they were mostly bothered by the groans and moans of other patients. This was because of the perception of MV as a thin line between life and death and the sounds were reminding them of death. A similar study also reported that patients were annoyed by the groans and moans of other patients.[22]

MV was a significant barrier to communication and nurses were a facilitator of communication for our patients. Also in other studies patients reported that nurses and other healthcare workers were of great importance in facilitating communication and reducing their fear.[3,6,23] In our study patients reported that nurses used mostly standard questions, head nods and mimics for communication since their time for communication was limited indeed. Similarly, Happ et al concluded in their study that head nods and mouthing words were the most commonly used methods of communication.[6] Similar to our findings, the same study reported that nurses dedicated a very limited time to communicate with patients. To improve the communication between patients and nurses to reduce anxiety, it may be helpful to use the appropriate communication methods customized according to the special needs related to the health condition of patients while dedicating more time.

As mentioned above, negative experiences due to PMV make the ICU period, which is already difficult, even more unbearable for the patients. Being hopeful, family support, positive attitudes of nurses and religious beliefs were effective factors in dealing with stressors related to PMV and the ICU. Arslanian-Engoren et al reported that patients considered PMV treatment as a difficult test.[12] "Believing in God" and "believing in the power of prayers" were supportive thoughts for patients in dealing with the anxiety and panic attacks. In another study, patients reported that they needed to maintain hope to stay alive.[24] Hupcey reported the importance of hope for ICU patients as “maintaining hope was imperative for ICU patients, because being hopeless meant giving up”.[25] The religious faith and prayers, which patients have chosen to try in order to overcome the negative experiences, were not distinctive based on the cultures according to the observations made during the research. Furthermore, similar patterns of behavior have been monitored among patients from different cultures. Therefore, it might be helpful for nurses to encourage patients to express those feelings and treat them in an empathic and understanding manner.

Many studies pointed out the important effect of family support in decreasing ICU stress.[5,10,12,26] Granberg et al reported that spouses, relatives, friends, nurses or other staff members and the presence of hope were emerging factors in dealing with fear and anxiety.[24] Our patients stated that they did not experience any limitations on seeing their families in the ICU. Although most patients were happy with this, a majority added that they were unhappy to be seen by their family in a weak and dependent physical condition. Similarly, Hupcey reported that although being accompanied by relatives made patients feel secure they were distressed when their relatives came in upset and crying.[25] This may be attributed to inadequacy of nurses in providing information to the patient and the family regarding the condition resulting with inadequate preparation of the patient and the relatives for the interview. Another reason for this reaction may be the strong and independent role given to the males by the society.

Despite the few negative experiences related to PMV, the vital role of MV was inevitable. Although most of the patients hated the MV procedure, they at the same time considered it indispensable for survival. Russel’s study showed that 14% of patients reported ambivalence for technologic devices in the ICU.[22] Johnson et al in their qualitative study on nine PMV patients reported that although patients were disturbed from the presence of devices like MV and ETT, they accepted that those devices were essential for their survival and they had to accustom themselves to live with them.[27] The feeling of ambivalence for devices may be a mechanism to cope with the negative effects of ICU and PMV. We suggest that nurses should use an empathic approach towards patients and inform them about the functions of the devices used.

We found in our study that friendly nurses and positive nursing attributes, professional competence and experience of nurses decreased the influence of negative effects of PMV and ICU. The attributes, approach and skills of nurses played a vital role in the quality of patient experiences with MV as in other studies.[25,26,28]

CONCLUSION

The results of our phenomenological study to determine the experiences of ten patients on PMV in the ICU has shown that PMV treatment was associated with negative experiences in most patients. However, despite their negative experiences, the patients admitted that MV treatment was necessary and life saving.

Physical restrictions related to ETT, dependency, air hunger, thirst, pain, inability to talk and difficulty in being understood were described as uncomfortable and stressful experiments by our patients. Planning the visits according to the requirements of the patients and families, positive thinking, praying, maintaining the hope, being cared by experienced and friendly ICU nurses were described as effective factors to cope with stress.

The results of this study suggest that to determine the personal care needs of the patients on PMV and to plan nursing care above those needs would be beneficial. The patients and their families should be cared with a holistic approach and convenient coping methods should be supported. In conclusion, ensuring that ICU nurses are aware of the results of such studies and including this subject in service training programs would be useful to improve the experiences of nurses.

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