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Experiences of Conscious Patients Undergoing Tracheal Intubation: A Qualitative Study

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ABSTRACT

Background: Tracheal intubation is a life-saving action in situations such as respiratory failure. However, this therapeutic approach may produce a series of side effects and physiological stress, such as pain, insomnia, anxiety, fear, etc.

Methods: The present study is a qualitative research with a content analysis method conducted for a period of two years. This study's required information has been collected using non-structured face-to-face interviews with 22 patients hospitalized in emergency and intensive care units. The data were analyzed using open coding and MAXQDA 12.

Results: Findings from the interviews' were divided into two main categories of mental and physical experiences. Mental experiences are divided into 12 sub-categories and physical experiences into 7 sub-categories, each of them is also divided into further categories. Inability to speak is the most frequent complaint of patients in this study. The pain was the most common physical complaint of patients, mostly due to pain in the organs and pain due to blood sampling.

Conclusion: Despite special training of medical staff in emergency and intensive care units to take care of patients and to obviate their special needs, it is observing that some patients under certain conditions such as intubation still face many unmet needs.

Tracheal intubation is a life-saving action in cases such as respiratory failure or when the patient's airway is in danger. However, this therapeutic approach may produce a series of side effects and physiological stress, such as pain, insomnia, anxiety, fear, etc.; the patients, due to deprivation of the ability to speak, cannot express themselves through their usual means of communication [1-2]. In the past, it was tried to decrease these side effects with deep sedation. However, some studies demonstrate that keeping all patients anesthetized for the entire time they are under intubation may increase the duration of the period that mechanical ventilation is necessary [3]. Therefore, temporary discontinuation of sedatives is sometimes used [4,5], which causes patients to experience more alertness under endotracheal intubation.

On the other hand, this group of patients is usually under a critical medical condition. Physicians pay most of their attention to the physical problems caused by the underlying disease and pay less attention to the patients'

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worries, beliefs, and expectations [6]. The mentioned factors cause patients to mention several unpleasant psychological and physical experiences during their treatment, mentioned in various studies. Physically, experiencing pain, inability to speak and communicate, limb function changes and inability to move have been reported. Also, unpleasant psychological experiences involve fear, anxiety and panic, and loneliness [7-11].

In the current investigation, researchers have tried to explain the faced experiences during treatment by interviewing the patients who were conscious for the period of intubation. In addition to conducting this study in Iran's health care environment, a short interval time between experience and an in-depth face-to-face interview is one of the features of this study that has been less considered in previous studies.

Methods

The present study is qualitative research with a content analysis method conducted in a period between March 2016 and march 2018. The patients participating in this study were selected among the patients admitted to the emergency and intensive care units of Imam Khomeini, Sina and Shariati hospitals in Tehran, Iran based on the following criteria:

- Having the experience of endotracheal intubation for at least one hour.
- Having level of consciousness appropriate for interviewing and sharing experiences
- Patient consent to participate in the interview
- No objection from the patient's medical practitioner for conducting the interview

Patients who could not recall the period of intubation were excluded from the study. Also, if the patients were not ready (physically or mentally), they were referred to again at another time. The study protocol was approved by the Research Ethics Committee of Tehran University of Medical Sciences.

After obtaining the patients' consent, their experiences were recorded. In the process of conducting the study, no samples were excluded, and all patients were willing to participate in the investigation. The required information in the present study was collected using face-to-face interviews with participants. The interviews were open and unstructured. The interviewer (an emergency medical assistant) after visiting the participant and introducing herself (name, education, position in the hospital, title, and purpose of the study), began the interview with this question (and its concept): "What is your experience of the period when a breathing tube was placed in your trachea?" The patient's moods such as anger, fear, sadness, crying, anxiety, etc. were also recorded during the interview. The duration of the interviews extended from one and a half to three hours. Interviews recorded by the tape recorder were then converted from audio to written form, and another researcher was asked to evaluate the implementation and to minimize the error coefficient.

Participants After interviewing 19 participants, simultaneous surveys and analyses by the researchers indicated that no new codes could be extracted in the final samples. However, the study continued, and after interviewing three other cases and finding no new codes, the researchers concluded that the findings were saturated. Therefore sampling was wrapped up with 22 participants and the study entered its final analysis phase of the results.

Data analysis method and code extraction in the present study, the open coding method has been employed. In this type of coding, the concepts within the interviews and the documents are classified based on their relationship to similar topics. The result of this step aims to distill and summarize the mass of information obtained from interviews and documents into similar concepts and categories.

The five members of the research team, including a faculty member of the Department of Emergency Medicine, a faculty member of the Department of Anesthesiology, a faculty member of the Research Center for Medical Ethics and History, the specialist assistant of emergency medicine from Tehran University of Medical Sciences and one general practitioner, held a meeting to review the codes extracted from the first interviews and to compare them with other performed studies and to initial determination of necessary codes for continuation of the study. Continuing and simultaneously conducting interviews, other sessions were held to review the status of the current codes and extract the new codes. In order to perform qualitative analysis on the conducted interviews and utilizing the required codes, MAXQDA 12 software was used.

Results

Demographic findings of participants:

Out of 22 eligible patients, 22 complete interviews were obtained (Table 1), of which 17 were males, and 5 were females, and their mean calculated age was 56.7 (min 19 and max 96). In the age group of under 50 years old (with a minimum of 19 and maximum 44), 9 cases, in the age group of 50 to 80 years old (minimum 50 and maximum 75), 8 cases and the age group of older than 80 (minimum 80 and maximum 96), 5 cases were present.

Patients' experiences:

The findings of this study are divided into two main categories of mental, physical experiences. Mental experiences included 12 subcategories, and physical experiences involve 7 subcategories. The main codes of mental and physical experiences are revealed in (Table 2).

Table 1- Cases of Study

n	Sex	Age	Cause of hospitalization	Intubation period (day)
1	male	33	drug poisoning	15
2	female	35	fever and loss of consciousness	4
3	male	27	shortness of breath	7
4	male	44	multiple Trauma	9
5	male	69	loss of consciousness	5
6	male	95	pneumonia	8
7	male	32	falling from a height	14
8	male	30	burns	7
9	male	72	pneumonia	3
10	male	50	loss of consciousness	8
11	male	19	multiple Trauma	5
12	male	68	shortness of breath	5
13	male	38	seizures	5
14	male	75	loss of consciousness	5
15	female	96	respiratory distress	4
16	female	80	respiratory distress	3
17	male	90	loss of consciousness	5
18	female	30	esophageal stricture and history of seizures	1
19	male	62	perforated peptic ulcer	3
20	male	80	respiratory distress	25
21	female	52	loss of consciousness and shortness of breath	17
22	male	72	respiratory distress	1

Mental experiences

Feeling of concern: The feeling of concern code includes two sub-categories, "anxiety about family" and "anxiety due to the patient's fear of facing shortness of breath in case of taking out the respiratory tube." Concerns about patients' families originated from the fact that some of them had spent so much time alone and away from their families in the intensive care unit, they were always afraid that they would no longer be able to see their family (patient number 4). Also, some patients were worried that they could no longer breathe without a tube because they had experienced comfortable breathing through the endotracheal tube (after a period of difficulty breathing) (patient number 3).

Feeling of fear and anxiety: The main reason for fear and anxiety in patients was witnessing the death of adjacent patients and the probability of being the next person who dies. Patient number one said: "At one point, I felt a lot of noise started next to me, which later someone said it is enough and take him! And then I saw that the patient (dead) was wrapped up and taken away. Since then, as they were coming to me, I thought they had come from the purgatory to take me."

Table 2- Main Codes

Mental experiences	physical experiences
Feeling of concern	Feeling of pain
Feeling of fear and anxiety	Feeling shortness of breath and suffocation
Feeling of torment	
Tendency to leave the environment (sense of escaping)	Feeling uncomfortable and tormented by constant lighting
Feeling of loneliness	Feeling of thirst, hunger, nausea, and heaviness in the abdomen
Feeling of ignoring the patient's requests	
Feeling the need to be respected	Feeling inability to move
Feeling the need to talk and communicate	
Feeling misunderstood or being misjudged	Feeling the need to rest
Needing psychological support from caregivers and others	
Feeling of invaded privacy	Feeling comfortable (positive experience)
Unawareness of circumstances, place, and time	

Feeling of torment: Patients had experienced feelings of torment for reasons such as heaviness in the throat and inability to speak, the noise of the environment and even whispering of hospital staff, unprincipled displacements, presence of a tube in the throat, and severe pain.

Tendency to leave the environment (sense of escaping): In some cases, due to other psychological problems that had arisen, patients sought an opportunity to escape from the intensive care unit (Patient number one).

Feeling of loneliness: This code contains the sub-categories of feeling lonely, psychological effects of loneliness, the importance of family presence, fear of being away from family, and feeling isolated. After the patient was recovered, sometimes these feelings had continued. This feeling can be generated due to spending much time away from family and friends in the intensive care unit similar to the feeling of concern about family "Now, that more than a month has passed ever since, I still cannot sleep alone or go anywhere, and within myself, I feel the fright of those situations," said Patient

number one. One of the patients, who had entered the ward anonymously, had experienced this feeling more severely compared to the other patients.

Feeling of ignoring the patient's requests: During the intubation period, patients are not able to speak, and this leads them to be unable to communicate and express their requests and demands; thus, the medical staff cannot interpret the intentions of the patients properly. One of the patients who had been battling cancer for a while, complained about this matter since she could not attract the medical staff's attention to her hand fistula. She had felt that this matter would put the future of the fistula at risk.

Feeling the need to be respected: The absolute inability and reliance of a patient on others put him in an emotionally fragile situation, and if his needs are disregarded, or his human dignity is not taken care of, it can harm the psyche of the patient to such an extent that his suffering goes far beyond physical suffering. Also, due to the difficulties of working in the intensive care unit, some medical personnel may lose the required patience in dealing with patients, so some of the hospitalized patients felt that dignity had been violated during their hospitalization. "The patient is a human being, and it is necessary to treat her like a human being and to consider her needs," says patient No. 2. "They don't care that you are a human," said Patient No. 5. And patient No. 6: "It was as if an animal had been tied to a bed."

Feeling the need to talk and communicate: This experience was divided into two sub-categories, including "inability to speak" and "feeling the need and significance of communication." Patients testified that the inability to speak was their worst feeling because this inability to express desires provoked many problems. As has been pointed out, the inability to express demands sometimes leads to a lack of understanding by the medical staff of the patient's requests and causes many problems for the patient or medical personnel.

The inability to speak can also make the patient emotionally fragile and misinterpreted by the medical staff in some cases (patients No. 6 and 7).

Feeling misunderstood or being misjudged: Patients complained about the misunderstanding of their behavior by the medical staff. In almost all cases, this misunderstanding arises due to the impossibility to communicate and express demands. For instance, the overwhelming struggle of the patient due to his sense of hunger had led to misinterpretation of the medical staff, and his behavior had been linked to a previous neurological disease. (Patients 7 and 10)

Needing psychological support from caregivers and others: This code has two sub-categories: "feeling the need for more care from medical staff, especially against foes" and "feeling the enmity of others with them." As it has been pointed out several times, patients undergoing intubation in the intensive care unit are in an extremely special psychological state and are very delicate. This fragility, in addition to some hallucinations caused by painkillers, makes some patients feel that some people are hostile to them and need protection against this hostility (Patient No. 1 and No.12). Patients 1 and 12 had experienced hostility from others, and Patient 1 had felt the need for more psychological support from medical staff and others. According to the content of the interviews, this issue stems from two points. The first is that sometimes the medical staff does not pay attention to the patients emotionally, and the second is that, as mentioned before, patients in such a situation suffer from certain mental problems, which sometimes continues to bother them even after treatment; just as patient No. 1 who was still being treated by a psychiatrist.

Feeling of invaded privacy: Patients point out two things about this category, one being that they need privacy, "I wish you would make sure that patients are separated in the ICU and that no one sees the patient next to them." And another being embarrassed by being cleansed by others: "... the one who was cleaning me realized that I was embarrassed by him cleaning me ..."

Unawareness of circumstances, place, and time: The patient's clinical condition and medications that impair the patient's consciousness are the two most important reasons for this. Also, staying in a bed in a completely enclosed environment where the lights are always on and the devices and personnel are always active and ready to work is another reason for unawareness of time. (Patients 4 and 7).

Positive experience: In addition to negative experiences, positive experiences were also mentioned. It was the good feeling of hearing a familiar voice, which was the voice of one of the medical personnel who had given her awareness, reassurance, and comfort at the first encounter (Patient No. 18).

Physical Experiences

Feeling of pain: Pain is an unpleasant physical feeling that many patients had experienced. Of course, this pain did not stem from the disease in all patients. Causes of feeling pain were unprincipled displacements, immobility of the patient (as an instance, patient No. 9, who wished that patients be moved at least two or three times per day), endotracheal intubation, pain from blood sampling, and pain and burning from the inability to urinate. Sometimes the pain was felt due to other problems of the patients, such as cancer, multiple traumas, addiction, and old age.

Feeling short of breath and suffocation: In the present study, shortness of breath and suffocation have been recorded to occur for two reasons; First, due to a background disease (respiratory distress, drug abuse, and shortness of breath resulting from history of myasthenia

gravis), and the second was due to obstruction of the endotracheal tube.

Feeling uncomfortable and tormented by constant lighting: Due to the particular conditions that exist in the intensive care unit, the staff are always on standby, and patients need care at all times, so there is no rest for the staff in this unit, and a time for a shutdown is meaningless. However, patients need to rest and a turn-off period and the constant light in the ward is uncomfortable for them. (Patients No. 3 and 7)

Feeling of thirst, hunger, nausea, and heaviness in the abdomen: Most of the patients reported thirst. All patients had who felt hunger had experienced thirst as well. It is feasible to satisfy patients' hunger with gavage, but the complication may trigger a feeling of heaviness in the Stomach. Just as patient No. 17 who had experienced this problem

Feeling inability to move: Patients undergoing intubation are not able to move, and this inactivity is very annoying in the long term. Besides, another problem caused by the inability to move is the incompetence to use the toilet normally. Therefore, moving becomes a demand for patients, and the inability to move becomes a feeling of torment. The patients also become very upset and sad that they cannot even move to the bathroom. In certain cases, when their hands and feet were inevitably tied (as stated in the section of mental findings), they felt that they were tied to the bed like animals, and their dignity was shattered.

Feeling the need to rest: As stated previously, the peculiar atmosphere of the ICU requires that personnel and devices be always on standby, and there is no rest for them. Hence, the noises of operating devices in the emergency ward, the staff's voice, and the luminous lights disturb the patients' rest. In such cases, patients sometimes feel that their need for rest is not considered, and this feeling causes them nervous tensions. (Patients No. 5)

Feeling comfortable (positive experience): In addition to all the negative mental and physical feelings mentioned above, patients also experienced a positive feeling. They felt relieved by the shortness of breath due to the endotracheal tube. "It is a good solution to prevent my suffocation." says patient No. 20.

Discussion

The present study illustrated that patients with mechanical respiration systems hospitalized in the emergency and intensive care units had unpleasant experiences due to their special conditions that they could not express during the hospitalization period, which is confirmed by many other studies. Some of the mentioned experiences in our study have been observed in other related studies as well, while some experiences have been mentioned for the first time.

In the present study, fear of shortness of breath and being away from family triggered anxiety. The feeling of torment was a psychological experience that was inferred from patient interviews to be a result of physical stress; The reasons for the feeling of torment, according to the patients, were as follows: heaviness in the throat, inability to speak, ambient noise, unprincipled displacements, severe pain and the presence of a tube in the throat.

Even though the intensive care unit's whole purpose is to address a patient's request perfectly, patients still complained that their requests were not heeded. Of course, this can be due to patients' inability to speak and the inability of staff to understand them.

Misinterpretation of the patient's behavior and misjudgement of others about their behavior were two unpleasant experiences of patients, the main reason for which is the inability to speak and communicate. In some cases, this misunderstanding also culminated in clinical problems. Also, misinterpretation about patients' survival and their identity in some cases had violated the dignity of the patients, or contemptuous conversations about the patient or inappropriate behaviors with patients, such as throwing him/her on the bed, tying their hands too tightly or unnecessarily wearing a scarf to the patient were among them. The misinterpretation of patient behavior in similar studies was not directly investigated to compare the present study results with it; thus, it seems that considering this case is one of the positive points of the present study compared to other studies.

Regarding privacy as mentioned before, patients complained about being cleansed by others while other patients being present adjacent to them.

Patients also reported unawareness of time among their complaints. The reason for the patients' unawareness of nocturnal or diurnal time is the permanent ambient noises in the ICU that stem from conversations among the personnel, chronic noises from devices and lights in the unit that prevent the patients from having any sense about time. In addition to the loss of awareness of day and night, the presence of ambient noises and constant light had disrupted patients' rest and caused a feeling of torment due to constant light (in the category of physical experiences). In all considered studies similar to the present investigation, the conditions of the ICU and emergency units were described as conditions in which patients are not able to rest properly and the noises of operating devices, constant light, movement of staff and patients' companions disturbed the rest of other patients and caused them not to be able to distinguish the time (in terms of nighttime, or daytime).

Feeling the need for respect was another complaint mentioned by the patients. Some patients said they were bedridden like animals and treated inhumanely, and some others said they wished the medical staff would understand.

Patients 1 and 12 had experienced a feeling of others' hostility to him, and Patient 1 had felt the need for more psychological support from medical staff and others. Of course, according to the content of the interviews, this issue is rooted in two factors. The first is that sometimes the medical staff do not pay attention to the patient emotionally, and the second, as previously mentioned, patients in such a condition undergo a certain type of mental problems, which sometimes bother them even after treatment; just like patient No. 1 who was still being treated by a psychiatrist. Patients undergoing intubation in the intensive care unit are in a particular psychological condition and are very fragile. In addition to some hallucinations caused by Analgesics, this fragility makes some patients feel that some people are hostile to them and need protection against this hostility.

Inability to speak is the most frequent complaint of patients in this study. Of course, the inability to speak per se produces feelings of torment, despair, depression, and loneliness; and causes members of the medical staff to misunderstand patients' behaviors and do not address the needs of patients perfectly. In other related studies, the sense of inability to speak is repeatedly mentioned.

The pain was the most common physical complaint of patients, mostly due to pain in the organs and pain due to blood sampling. Undeniably, the sensation of pain in a patient undergoing intubation with complex clinical conditions is completely inevitable. Of course, pain management processes may not be performed well in hospitals as in all similar studies patients experienced severe pain.

Patients had experienced thirst and hunger. However, further investigations revealed that these two senses' experience is in direct relation with the duration of intubation. The intubation duration for patients who experienced thirst and dry mouth was 9.7 days and in patients who did not experience this sensation was 6.2 days. Also, intubation duration was assessed to be 13 days in patients who experienced starvation and 6.1 days in other patients. These discrepancies were meaningful in the statistical test (P-value<0.05).

Inability to move was also a complaint reported by several patients, is absolutely normal and inevitable, which consequently causes patients to need to move.

Constant light, ambient, and staff traffic noises were also the issues that disrupted patients' rest. Of course, all these matters are inevitable in the ICU and emergency units. Devices must always be on standby, and their alarms must be active, and patients regularly need to be inspected by the medical team, which must be addressed immediately.

In a study by Albaran, patients who experienced anxiety, stress, and concern due to being away from family in the intensive care unit and being under mechanical respiration had experienced the terrifying feeling of ambiguity in survival and stress because of being separated from family [12].

Also, Magnus and Turkington have stated in their study that being away from the family in the intensive care unit and being under mechanical respiration creates a sense of stress and anxiety in patients. In this study, patients claimed that they were treated like children and treated as if they were nothing and didn't matter to anyone. Another discovery of this study explained that 4 out of 7 patients complained of inability to speak during intubation. Besides, being in a state of having to ask for a toilet from others was very embarrassing for the patients and made them feel very ashamed. Patients in this study also complained of thirst and said they had felt they would die of thirst. Inability to move was another complaint of patients in the study [8].

According to Levin's findings, being away from the family in the intensive care unit and under mechanical respiration causes anxiety, stress, and concern [13]. Johnson and Sexton have described the noises in the emergency unit as very disturbing [14]. In Baumgarten and Poulsen's study, death's imminence was described as a frightening sensation for patients undergoing intubation. In this study, patients mentioned that they need to be with their family, and family visits could reduce their sense of loneliness. They also described loneliness as a disturbing experience for patients [7].

Patients in the Baumgarten and Poulsen study reported thirst as the worst feeling. The study also described emergency ambient noises to be disturbing for resting patients [7].

Baumgarten and Poulsen state that medical staff's presence and attention create a sense of security in patients; instead, if staff's presence is accompanied by lack of attention and respect, it creates a feeling of violation of dignity in the patient [7].

Baumgarten and Poulsen conclude that the experience of inability to communicate and the inability to speak was the worst experience reported by patients [7].

Engstorm states that family presence can reduce patients' sense of loneliness. In his investigation, he claims that striving to communicate, which results from not being able to speak, causes patients to feel frustrated. In this study, patients described dependence on others for meeting the most basic needs, including being cleansed by others, to be a tormenting feeling. Noises in the emergency unit were also described as discomforting for the patients. In this study, positive emotional feelings were reported, which were namely a sense of security and peace by being with the medical team. Of course, those medical staff members tried to calm the patients with different methods such as talking and looking kindly [15].

The severity of the effects of patients' mental and physical experiences was in such a manner that in a number of interviews, stating the experiences related to

the inability to speak and the expressing needs by patients caused them agitation and sometimes patients began to cry or weep tears.

It can also be deduced from the results of the analysis of patients' experiences that not much effort is put to overcome communication problems and to meet patients' emotional needs; even though in the new protocols of intensive care, much emphasis has been placed on compassion and empathy of the medical team with patients, and this perspective has replaced the attitude which only corresponds to the physical and therapeutic needs of the patient [16-18]. This attitude requires the improvement of psychological and emotional skills in medical staff instead of focusing solely on medical issues, especially for physicians and nurses, in addition to their clinical skills [19]. In other words, the cure-oriented standpoint of patients has become a care-oriented standpoint of patients. A perspective in which, in addition to the clinical and therapeutic needs of patients, their other demands, including emotional issues, are considered as well [20].

J.Criner and Isaac described depression as a consequence of not being able to speak. In their study titled "The Psychological Problems of Ventilator-Related Patients," have described these problems as anxiety, depression, agitation, delirium, confusion, and fear [15]. Jubran et al. also found in their study that 42% of patients develop depressive problems after being released from the ventilator [21].

In addition, the results of an extensive review study of about 22 investigations in this field reveal that high emotional intelligence of health care providers and establishing appropriate emotional communication with the patients increases patient satisfaction and recovery rate [22]. Ong accentuates in his study that it can be alleged that the principle of communication between physician and patient is summarized in verbal communication. However, non-verbal communication, such as facial expressions, standing posture, and hand movements, can sometimes be even more effective than verbal communication. In addition, non-verbal communication is the only means of communication for patients who are unable to speak or listen [3]. For instance, in this study, a situation arose for one of the intubated patients in the emergency unit where an emergency physician, while providing the patient medical services, whispered in her ear, and in addition to describing the patient's condition, gave the patience hope of resolving problems and her improvement for a while by having patience. The patient later raised this scenario as a pleasant, soothing, and hopeful memory after being extubated in the ICU.

In the present survey, it was discovered that some patients had made an attempt to communicate by writing. In the study by Magnus and Turkington, patients in addition to writing as a means for communication were provided with a board or written chart by the medical staff through which staff and patients could communicate together [8].

Of course, some patients' expressions about their experiences may be due to delusions and inability to make correct judgments due to the disease or the prescribed medicines. Also, the occurrence of Post ICU syndrome (where patients undergo persistent cognitive impairment and post-traumatic stress disorder) Makes the interpretation of these experiences and judgments very tricky. Studies indicate that out of 5 million patients admitted to the intensive care unit, 50 to 70% of them have suffered some degrees of this syndrome [24].

In the study by Baumgarten and Poulsen, positive emotional feelings were also reported, these positive feelings included a sense of security and calm with the medical team; Of course, those members of the medical team who had tried to calm the patients with various methods such as talking and looking kindly [7]. The positive physical experience was due to the improvement of shortness of breath. An analogous feeling has been reported in a study by Prime et al. [9].

Conclusion

Despite of the special trainings of the medical team in the emergency and intensive care units to care for patients and meet their special needs, it is still observed that patients under conditions such as intubation face many unmet needs. The main reason for the unmet needs in patients under intubation is communication barriers, and the first communication barrier is the inability of patients to speak. In such a condition, if the patient is not able to move even his hands to do things like pointing due to prescribed medicine or other reasons such as being tightened to the bed, this problem is doubled. This inability to speak will culminate in severe psychological issues that make it more challenging for the patient to be understood. Another issue is the lack of communication skills with intubated patients in the medical staff or probably some attitude problems in this regard. Communicating with patients undergoing special treatments such as intubation requires special skills that, unfortunately, university educational institutes and in-service training programs (at least) seem to have received little attention. Under such circumstances, patients are situated in a position where their minimum needs are not only unanswered but even impossible to be expressed. Thereupon, it is worthwhile to consider resolutions to these issues.

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