

Paper II

‘In a way, you have to pull the patient out of that state ...’: the competency of ventilator weaning

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‘In a way, you have to pull the patient out of that state ...’: the competency of ventilator weaning

The introduction of the weaning protocol has reduced weaning time and improved results in patients. However, the evidence is inconsistent. This may reflect that the use of a protocol should not exclude individual considerations and clinical judgement. However, the significant aspects of the context and the competency important in the nurse–patient relationship in weaning have not yet been sufficiently described. This study aimed at exploring these aspects of weaning. Qualitative data from six in-depth interviews and field observations of three experienced intensive care nurses in weaning situations were analysed through systematic text condensation within a hermeneutic-phenomenological approach. Competency appeared to be based on thorough knowledge of physiology and ventilator skills, but also on knowing the patient, helping the nurse connect the meaningless to the meaningful for the patient. Behaving competently involves a continuous dialogue with the situation, observation of the patient’s body language and symptoms over a period of time and the ability to see the interrelationships of all these elements. Competency in ventilator weaning may thus be linked to personal qualifications, while it is simultaneously dependent on a professional community that both confirms and acknowledges this competency.

Key words: competency, intensive care nursing, phenomenology, ventilator weaning.

Weaning a patient from the ventilator is one of the main challenges in intensive care nursing. Between 25 and 40% of patients who are ventilated have difficulties with this process (Brochard and Thille 2009). Ongoing ventilation dependency is caused both by disease factors (respiratory, cardiac, metabolic and neuromuscular) and clinician management factors (MacIntyre 2007). The latter include ignoring the patient’s potential for weaning and inappropriate management of ventilator settings. Undue prolongation of mechanical ventilation can lead to increased risk of infection, while premature extubation followed by reintubation is associated with increased morbidity and mortality. It is therefore imperative to identify the correct timing of therapeutic steps for weaning and extubation (Lellouche et al. 2006).

The introduction of the weaning protocol has led to reduced weaning time and improved results in patients (Caroleo et al. 2007). However, the evidence is not consistent across all populations (Krishnan et al. 2004; Rose et al. 2007; Blackwood et al. 2010). Protocols are intended to reduce practice variation by replacing subjectivity with objectivity (Blackwood et al. 2010). The concepts ‘clinical worsening’ (Caroleo et al. 2007) and ‘comfort zone’ (Lellouche et al. 2006) within which the patient should be kept are highlighted in recent research as key assessments made through use of protocols. This may reflect that the use of a protocol should not exclude individual considerations and clinical judgement. Research shows that there is a connection between weaning time and the qualifications and experience of intensive care nurses (Thorens et al. 1995; MacIntyre et al. 2001). The significant aspects of the context and the qualities important in the nurse–patient relationship in weaning have not yet been sufficiently described (MacIntyre

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et al. 2001; Rose and Nelson 2006). In a recent literature review, it is emphasized that more empirical research is needed to examine competence in intensive and critical care nursing (Aari, Tarja, and Helena 2008). For this reason, a concept analysis of competence in weaning will be useful.

AIM

The purpose of this study was to explore, describe and contextualize aspects of competency used by intensive care nurses in ventilator weaning.

METHOD

Perspectives and methodological approach

To explore experiences and knowledge in professional weaning, we apply a hermeneutical-phenomenological approach (Todres and Wheeler 2001). Phenomenology grounds our research enquiry, applied in turn to the concrete practical situations. Practical work is often taken for granted, which emphasizes the need for interpretation. Hermeneutics adds reflexivity, generating meaningful questions and concerns about the phenomenon (Todres and Wheeler 2001). In addition, hermeneutics informs the attitude of the researcher, making explicit on one's preunderstanding and an ongoing reflexivity in the research process. To make explicit the theoretical perspective is a way to clarify our preunderstanding, which has implications for how we understand and reflect on the empirical data (Nortvedt 2008).

Competence is linked to a readiness to resolve issues that are specific to the profession and an ability to function well in practical situations (Lauvås and Handal 2000). Knowledge is a prerequisite for competence, where we place emphasis on the understanding of knowledge as knowledge in action (Molander 1996). This perspective is also highlighted in the Benner et al. research on nursing. The authors illuminate how certain types of work require expertise that is created and applied to a specific situation (Benner, Hooper-Kyriakidis, and Stannard 1999), and refer to Merleau-Ponty's phenomenology of the body (1994), where the body is described as the core point for experience, perception and knowledge. Molander (1996) uses two central concepts: 'technical knowledge' and 'orientation knowledge'. Technical knowledge includes both practical expertise and theoretical knowledge. Orientation knowledge concerns reasoning; it gives direction and distinguishes the unimportant from the important. Orientation knowledge is necessary to be able to apply the appropriate technical knowledge in the specific context (Molander 1996). The knowledge of diagnosis and treat-

ment is to be used in complex, ambiguous and often unpredictable situations. Hence, experience and discretion are important factors of clinical performance (Martinsen 1993).

For research purposes, it is necessary to explore the tacit and practical knowledge inherent in clinical practice (Malterud 2001b). To understand, reflect upon and improve competence in weaning, it is therefore important to cast light on and interpret the experiences and actions related to concrete weaning situations.

Setting and participants

This study was performed on a medical/surgical intensive care unit with eight beds at a local Norwegian hospital with about 500 ventilator days per year. The number of patients requiring a ventilator each day varies between none to five. A purposive sample was taken from among the 27 intensive care nurses. Selection criteria included nurses holding a postgraduate tertiary qualification (18 months) in the intensive care specialty and 5 years experience with ventilator weaning.

Data production

To gain insight into this phenomenon, we used in-depth interviews and field observation (first author). Three experienced intensive care nurses were interviewed about their experiences with ventilator weaning. After the interviews, informants were observed in clinical weaning settings during an entire shift. Field notes were written and a new interview was conducted immediately after each field observation. The interviews lasted 30 minutes to 1 hour. They were tape-recorded and transcribed verbatim. Field notes were an important part of data production as it represents clinical situations the researcher and the interviewee experienced in common. These contextual situations were used later in the follow-up interview and as contextual transitions in the data presentation (findings).

Analysis

The analysis was performed with systematic text condensation (Malterud 2001a) through the following four stages: (i) reading all the material to obtain an overall impression, bracketing previous preconceptions; (ii) identifying units of meaning, representing different aspects of nurse's experiences with weaning; (iii) condensing and abstracting the meaning within each of the coded groups and (iv) summarizing the content of each code group to generalized descriptions and concepts reflecting the most important attributions reported by the informants.

Table 1 Interpreted sub-themes and themes

Sub-themes	Themes
To take responsibility	Attention and professional judgement
To tune into the other person	
To look for causes	
To allow the body to do what it is meant to do	Communication and interaction
To facilitate well-being	
To pull and push	
To know the patient	
To have routines	Co-operation in the team
To have experience in the situation and to have experience over time	
To make a plan	

The condensed meaning units (sub-themes) are presented as headers, reflecting the informants' behaviour and expressions and are interpreted into three themes of intensive care nurse competence in ventilator weaning (Todres and Wheeler 2001) (table 1). Creating themes is a way by which to link underlying meanings in a text (Graneheim and Lundman 2004). The themes are then discussed in light of previous research and theoretical perspectives.

Ethics

This study was approved by the hospital's management and recommended by the Norwegian Social Science Data Services (NSD). The participants gave informed consent. The patients did not participate, however, they were a part of the interaction that was examined, and therefore the study was submitted for review and approval by The Regional Committee for Medical Research Ethics (REK).

FINDINGS

To take responsibility

Nurses felt the weight of great responsibility, as working on the ICU unit required that they were alert and fully present. Changes in the patient's condition occurred suddenly and required immediate intervention. The nurses were alert and ready for accidental extubation or tube occlusion. Responsibility was associated with identifying life-threatening changes and making necessary nursing interventions as well as with becoming familiar with the patient through days and weeks

of work. During this time, the nurses became personally involved with the patient. This responsibility was placed on them by virtue of the patient's bodily presence, with the requirement to relate to his discomfort and suffering as well as the progress and setbacks entailed in weaning. The nurse could not avoid the patient's expression and pleas.

To tune into the other person

Attention helped the nurse to 'tune into' the patient and was a prerequisite for action. Observation and interpretation of the patient's expression were based on perception and knowledge. A patient's struggling could be perceived through physical unrest:

If the patient is struggling and feels exhausted and it is hard to get air, then it affects me. I get a little worried ... I wonder if there's something I should do to make things better for the patient.

The fact that the patient became increasingly unwell was often the first sign that something was wrong. This unrest signalled the type of action to be taken:

I had a feeling that he wasn't comfortable lying on his side, the first choice was to turn him. An alarm message on the ventilator made me think that I must use the suction catheter ... And when I came half way down, it was occluded!

There were many descriptions of how the patient's bodily unrest affected the nurses. Their emotional involvement was revealed in descriptions of the situations as 'difficult', 'horrible', and 'extremely stressful'. All appeared to be restless in their search to understand and explain why the patient was having difficulties. Another form of attention was described in conjunction with a patient's being disconnected from the ventilator to allow him to breathe spontaneously for a time. The situation was planned and was part of weaning work. The perception of point at which the patient started to become tired was described as follows:

It is difficult to say anything concrete about it, but you can see it ... When breathing becomes more strenuous, you can see the effect on blood pressure, heart rate and respiratory rate. But if the patient also becomes physically restless, it is a sign of hypoxia ... even if they are sitting quite upright in the bed, they want to sit even more upright ... that tells us enough even before we see the numbers ...

As part of the decision to end the training session, the nurse was attentive to the objective measurements as well as the experience. In this way, attention helped the nurse remain one step ahead in the situation, which in turn prevented patients from becoming exhausted.

To look for causes

The nurses were continuously looking for causes and an explanation for why the patient had dyspnoea: 'So of course I discuss the patient's breathing, when it is like this, with the doctor or with colleagues.' A standard procedure used when the patient seemed to be straining to breathe was endotracheal suction, evaluation of the ventilator modes and measurement of blood gas. Any information from the results of an X-ray, like atelectasis or pleural fluid, was compared with other observations in an attempt to understand and explain the patient's strenuous breathing:

It may be excessive mucus production restricting the air passage, and we must try suction and see if it will be better. We may have to change the ventilator settings to make it easier to get enough air. We can, of course, test the blood gases, to have an objective measure of whether the ventilation is functioning. Maybe we should change the position of the patient, perhaps he is uncomfortable ... Sometimes it may be that the patient is uncomfortable lying on his left side and sometimes he can't be on the right side. So we have to try different things.

To allow the body to do what it is meant to do

Besides a tracheal tube, patients often have several intravascular catheters. This makes the body look and feel different. As soon as the nurses believed it was safe, they would:

Remove equipment ... that is also nursing. If you are not able to stretch out your hand to scratch your nose because of an arterial catheter, OK, then you simply don't scratch your nose. You become apathetic from such restrictions.

They focused on the importance of making it possible for patients to start using their bodies again. And this began with the trivial things. Instead of passively having their mucus removed for them, the patient was encouraged to swallow or spit so he could start using his facial muscles. For the same reason, it was important to let the patient begin to drink and eat despite enteral feeding. The importance of taking the patient out of bed to sit in a chair was emphasized. At that point, he would be limp and tired and unable to stand on his own feet. But despite this and the fact that risks were involved, it was a priority to accomplish this work-intensive task. It was seen as part of the weaning process and as a way to give the patient an important opportunity to change perspective.

To facilitate well-being

Despite the fact that caring for the 'biological' body was a central part of the work involving ventilator patients, the overall emphasis was on well-being:

It isn't fun to be awake when your hair is greasy or your body is sweaty. When your room is ventilated, the bed is changed and the bedside table cleaned, you do actually feel better than you did before.

Of course something happens mentally when they begin to feel better and we put on a little make-up or help them out of bed to sit in a chair. These things signal stability and that the patient has come a bit further than living in a hospital bed.

Well-being was also linked to resting. It was important to find a balance between activity and rest. There should not be bright lighting and activity around the patient all the time. Patients needed rest periods, also during daytime.

To pull and push

'To pull' was about directing the patient's attention to the real world again and was associated with 'pushing' the patient further in the weaning process. Some patients were difficult to reach although they were not sedated. They: '... close their eyes and want to shut us out. They just want to sleep.' This condition was not uncommon among patients who had been on a ventilator for several weeks. When patients lacked the will to live, it was important to make it possible for them to become a full person again: 'Firstly, the patient should have a tracheotomy so that his mouth is free. His facial expressions need to return.' It seemed essential to find the person behind the patient. It was difficult to encourage the patient when all the while he would prefer to withdraw into himself: 'And when I use the word pull, I mean to pull the patient out of that state.' Creating meaning for the patient in this process was important. The nurses used relatives in these situations, such as grandchildren (and drawings). This was helpful in reminding them of the life that they once had enjoyed.

To push the patient was an important part of the weaning process and meant that he received less support from the ventilator or he breathed on his own for fixed periods of time. This seemed frightening to some patients, but for others it was encouraging and gave them confidence in their own ability. The term 'training sessions' for the process of disconnecting the ventilator was used to emphasize the patient's role in the weaning process.

To know the patient

To know the patient was linked with making progress. Some patients who had come a long way in the weaning process showed signs of panic when they did not know the nurses.

One nurse's first meeting with a patient in the weaning process, where the patient had classic stress symptoms and air hunger, was perceived as a 'chaos scenario'. She called for the doctor to sedate the patient and give more support from the ventilator. The nurse was unhappy with the way by which she responded to the situation, stating: 'Sometimes you get stuck and choose the easy solution.' This was seen as a setback because the weaning process was negatively affected by the incident. To avoid such a situation at a later meeting, she gave priority to spending time with the patient to become familiar with him. After the nurse took a general overview concerning the patient, she sat down at the bedside:

Despite the fact that the patient could not speak, we chatted. I read the patient's lips and the patient wrote a little. After we did that for a while, he got a newspaper and I took another newspaper.

In this way, she created a common space that the two of them shared. This was important to establish trust and confidence.

To have routines

Routine was the recurrent theme. First and foremost, routines provided a common understanding. In addition, they gave the patient the comfort of predictability:

Weaning was still problematic, but he had made progress. Things went better when we agreed on when specific things were to happen, like ensuring when to rest and that he was sitting properly during the endotracheal suctioning procedure, etc.

Moreover, it was important to identify and agree on the critical point when the training session was to end.

To have experience in the situation and to have experience over time

Weaning required that the nurse assessed the patient's ability to do more of the work involving breathing. To have experience in the situation was linked to assessing the patient's 'drive' and his ability and strength to cough. The patient's age, muscle power and alertness were also important factors:

It may take only a few seconds to assess the state of the patient. This is a set of information you get by looking at him, the cardiac monitor, looking at the patient (again) and possibly feeling his skin.

In addition, the nurse must know if the patient had had any kind of lung disease before hospital admission. Tidal volume seemed to be a more important parameter than minute volume, as it was argued that small tidal volume could give atelectasis or be a symptom of fatigue. The assessment included having knowledge about infection parameters and checking for possible atelectasis or pleural fluid. Assessments were made with other nurses and doctors and often in the patient's room so that they could observe the patient:

We teach our colleagues what to look for. Although you have learned to look for stress symptoms such as perspiration and tachypnea, there are many other things ... You must see the whole picture, and that is not possible if you (the doctors) are in the room for only five minutes. You have to observe the patient over time.

Lack of progress in the weaning process was also explained by the occasional inexperience among doctors:

Basically it's frustrating that those who should make decisions are not capable of handling the situation ... We have more experience with the ventilator, modes and weaning compared to them ... The Servo, for example, they can't use it. Some of them are brave enough to admit it ...

To make a plan

There were great benefits to be gained by discussing a common weaning strategy with the doctors and by setting daily goals. To make a plan also included giving explicit reports and sharing knowledge with the less experienced nurses. A patient had been on the ventilator for a long time and had not shown respiratory progress in recent weeks:

It was summer ... there had been little health care worker continuity on the ward. A nurse hired temporarily got him. She was a good nurse, but there was not much progress regarding breathing.

The informant told the ward nurse that there had to be a plan that included experienced nurses:

Those with little experience still had the patient, of course. They could not be taken off the case as that would have been completely wrong. They had been given clear instructions on how we do this, and on the importance of staying with the patient. The patient managed fine when he knew he was connected to the ventilator, and then he was not afraid. But they thought they didn't need to be with the patient when he was sitting in his chair reading the paper. We had to explain to them that this is not the way weaning is done. It is when the patient is not on the ventilator that it is most necessary for us to be there! So three primary nurses were scheduled and after 4–5 days he was extubated.

DISCUSSION

Competence in weaning from mechanical ventilation is discussed based on the three themes which, from the underlying

ing sub-themes (meaning units), are interpreted to be central dimensions of the phenomenon.

Attention and professional judgement

Nurses demonstrate how they use technical knowledge in context when they are in doubt about why the patient shows signs of discomfort or anxiety. According to Benner, Hooper-Kyriakidis, and Stannard (1999) interpretation of these situations requires an emotional and professional involvement in the problem and the patient. It requires interpretation of the present situation in light of the previous condition of the patient to know whether he has become worse or better. This is analogous to Molander's orientation knowledge (1996). With a worsened condition, it is not enough to know that worsening has occurred; you need to know how and when it occurred.

Awareness and the ability to interpret the patient's expressions are fundamental for the actions that follow in the weaning process. The concept 'comfort-discomfort' is important, and our study shows how intuition (Martinsen 2006) and a nurse's emotional involvement (Benner, Hooper-Kyriakidis, and Stannard 1999; Martinsen 2006) awaken attention prior to an acute situation. The nurse deduces from the patient's body expression that something is wrong. An alarm message from the ventilator reinforces that something is going on. In situations where the patient continues to be uncomfortable, the nurses themselves feel a physical disturbance. According to Merleau-Ponty (1994), the body is the centre of experience and understanding. The nurses' alertness and unrest work as forces to find the explanation.

Attention is directed by several factors. According to Rolf's (1995) description of attention, emotion can be included as an element of tacit knowledge and serve as a tool that helps to direct attention without one necessarily being conscious of it. Professional knowledge and experience from similar situations seem to be important aspects of directed attention. What is perceived depends on, among other things, past experience and the meaning that is attributed to a certain action or event. The nurses in this study showed that not fully understanding helps sharpen the focus, which is in accordance with insights from the work of Benner, Hooper-Kyriakidis, and Stannard (1999). The ability to be aware also seems dependent on routine; deviation from routine or from what is expected makes one more vigilant. Although the nurse only suspects something is wrong as a 'feeling', such as in the example when the endotracheal tube was occluded, it may actually be the object of awareness in retrospect.

Weaning situations are characterized by dilemmas and complexity and require professional judgement. Our study

indicates that feelings as well as technical knowledge (Molander 1996) seem to work as 'unifying oppositions' (Martinsen 2006). These oppositions mutually reinforce one another and represent a space and a possibility ancillary to clinical judgement. Professional judgement requires a distance (technical knowledge), where we take on the openness of presence and the spontaneous (feelings) (Martinsen 2006, 64). Is technical knowledge more important than the feelings in informing professional judgement? The empirical data are ambiguous. In some situations, it appears that there are feelings that direct and open the situation. In other descriptions, the search for the cause and causal explanation is prominent. Causal explanation is necessary to achieve understanding and to be in control of the situation. Competence in weaning requires professional knowledge that takes this into consideration.

Communication and interaction

Nurses in our study are first and foremost concerned with bodily expression to interpret and understand the patient's condition and response to treatment. An intensive care patient's access to the world is limited by equipment constraints and by a body that is exhausted from illness and sedatives that reduce awareness. The original intentionality will be affected, not only because of the disease itself, but also because the patient is prevented from interacting physically and mentally with the world (Storli, Lindseth, and Asplund 2007).

The exact reasons for nurses' influence on patients' progress cannot easily be found in the medical literature (Thorens et al. 1995). This study indicates that one explanation can be found in what is considered a natural part of the intensive care treatment – as basic care (Aari, Tarja, and Helena 2008). The significance of this is underscored succinctly by one of the nurses who said, 'The ventilator itself does not make a patient well.' Weaning is more than technical knowledge and choice of mode settings. It is also about how to enable the body to be in a state through which it can heal itself, to promote well-being and to ensure that basic needs such as breathing, digesting and sleeping are met. These findings can be discussed in light of Gadamer's work (1996) in which he explains the enigma of health and the importance of maintaining life processes whereby equilibrium re-establishes itself.

When the patient has yet to breathe on his own, he is entirely dependent on the nurse, her presence, her observations and her interpretation of the patient's symptoms and need for ventilation support. Confidence is not something that can be created on demand; it is a manifestation of life

that is taken for granted in an interpersonal dependency. However, nurses can open up for it (Martinsen 2006, 53–69). Interaction between the nurse and patient, and the confidence and trust established in the situation, can affect the patient's experience in that they feel cared for and safe (Shattell, Hogan, and Thomas 2005). Egerod (2003) suggests that knowing the patient is not as important for nurse performance as experience and education. Our study also shows that knowledge of the field and knowledge from experience are very important for clinical reasoning and performance. The finding in our study, however, mirrors those of a British study (Crocker and Scholes 2009) which found that knowing the patient is a crucial part of competence in weaning. When the nurse knows the patient well, she can better cope with being in the situation over time, which in turn enables her to make the necessary skilled assessments before making interventions. She also becomes able to tune into the patient and to 'push and pull' in a caring manner.

Does it make sense, then, to push and pull at the same time? It seems like a contradiction, and may entail a perception of the patient as passive and manipulated. Nonetheless, the nurses use these terms when describing the weaning process. It is the patient that is pulled, but it may be asked: *Where is the patient pulled from and what is the patient pulled toward?* And, the ultimate question concerning seriously ill patients: *Is the patient himself aware of this?* In many cases, this is precisely what makes weaning so difficult. The patients are on the fringes of life. Nurses experience the difficulties in trying to reach into the patient's world and 'pull' the patient back to life, back to 'here and now'. In the phenomenological sense, it is a question of the patient's access to the world. When ventilator patients have lost the opportunity to speak, and when the original and normal body intention is limited because they are unable to move, it seems meaningful that 'to pull' is about recognizing bodily expression. When the nurses facilitate well-being and enable the patient to start using their body again, this may help to create meaning for the patient and give the patient courage to use his body. With reference to Molander's orientation knowledge (1996), this is a dimension of competence that makes it possible to draw the patient's attention to the world again.

Building trust between nurse and patient is important for avoiding panic in future training sessions. Panic is not necessarily an indicator that the ventilator is needed, it may be an indicator that it is hard to breathe. In this way, the foundation is laid for the patient to build trust in his own body and capability to breathe and to become familiar with the difference between spontaneous breathing and ventilator supported breathing. The training sessions become meaningful when the patient feels this difference. Thus, 'to

push' means that the person doing the pushing displays good judgement in the sense of assessing the situation and making arrangements so it is possible for the patient to let himself be pushed. The patient must feel that the resources and potential are in place to make the task at hand safe and feasible. This requires a form of competence that involves establishing trust, but also includes the willingness to use mild force with the patient when necessary.

Co-operation in the team

Competence in weaning includes clinical observations such as change in sputum colour, needs and effects of sedation, the patient's adaptation to changes of ventilator modes, acceptance of the endotracheal tube and readiness for extubation. Assessment in the specific situation as it appears is not always sufficient. Inadequate knowledge of the individual patient can lead to decisions that are not in line with that patient's potential for spontaneous breathing. Only by being close to a patient over time can changes be more correctly assessed as setbacks or progress. In a situation where a patient is panicking, the nurse takes control in what she describes as a chaotic situation to relieve the patient's sensation of suffocating. By agreement with the doctor, she chooses heavy sedation and increased ventilator support. As a result, the weaning process is set back. This type of situation, where there is an appeal or demand made on the nurse, is an example of 'ethical demand' (Martinsen 2006). Thus, she acts in a morally correct manner. The nurse's reasoning, however, may have been different had she been more prepared and had the patient and nurse previously known each other. This reflects that clinical judgement and decision-making are situated (Gillespie and Paterson 2009), but it also signals the lack of a common strategy.

This study provides insight into how the intensive care nurse's dialogue with the situation is dynamic. Understanding, interpretation and action must be seen in connection with the patient's expression and how the situation is played out. To go into dialogue with the situation involves both an intellectual and a physical dialogue. Gadamer (1999) argues that what motivates understanding is that it must first have manifested itself in its unfamiliarity. In striving to interpret, there is a commitment to help the patient. But in the case of understanding, there is a risk of misunderstanding (Gadamer 1999). Benner, Hooper-Kyriakidis, and Stannard (1999) describes clinical wisdom and competent behaviour as a competence relating to the individual intensive care nurse's assessments and actions. However, Rolf (1995) suggests that Benner's individualistic theory of nursing seems inadequate. The ability to think critically and make joint

assessments aimed at minimizing the possibility of misinterpretation seems to constitute an element of competence in weaning.

This study indicates that the boundaries between professional nursing and medical responsibility are indistinct. As regular routines help to establish predictability, coherence, continuity and security for the patient (Benner, Hooper-Kyriakidis, and Stannard 1999), the introduction of the weaning protocol may provide doctors and nurses with a common reference point for discussing the weaning process. It also makes it easier for newcomers to learn weaning (Hansen and Severinsson 2007). We suggest, however, that the complexity of challenges does not disappear with the introduction of protocols. The main reason for this is that using the protocol requires a specific competence in weaning which includes the expertise necessary to make a clinical assessment of the patient's ability to tolerate weaning.

METHODOLOGICAL CONSIDERATIONS

Basic conditions for scientific knowledge can be made in the terms of relevance, validity and reflexivity (Malterud 2001a). The first author is an intensive care nurse. The advantages of this include knowledge of procedures and terminology when assuming the role of participating observer. However, doing research in one's own field also has drawbacks (Wadel 1991) one of which is that the social and cultural understanding of the field becomes subconscious and internalized. The field's complexity, both in terms of medical understanding and interpersonal interactions with the critically ill, however, requires that the observer attempting to describe the phenomena comprising competence must be able to capture the situation and distinguish the important from the unimportant. In qualitative research, it is not desirable to avoid bias in situations where the interpretational standpoint and field knowledge provide special conditions for insight and understanding (Malterud 2001b). The study's credibility is also strengthened by the interpretation from an outside perspective, namely the second author.

Field observations were made to strengthen validity. Relatively detailed descriptions are used to emphasize the relationships, dilemmas and complexity of the situations. The purpose is to give insight into ventilator weaning, but also for the reader to recognize one's own experiences. The recognition of meaningful aspects of a text may help to alter understanding and make it possible to see one's own clinical practice in a different light (Van der Zalm and Bergum 2000).

CONCLUSIONS

Competency in ventilator weaning cannot be defined in absolute terms because it exists in a specific and ever-changing set of circumstances. This study points out some key areas that are significant for understanding competency. Competency in ventilator weaning requires that the nurse be able to focus and interpret the patient's expressions, which implies a constant exploration in understanding and explaining the patient over time in his context. Competency should be understood from that particular meeting with the individual patient and appears to be linked to the recognition of bodily expression and a conscious approach that involves allowing the patient's body to take over again. It is about connecting the meaningless to the meaningful. As weaning is influenced by an unstable sequence of events and the ambiguity of a patient's body language, the nurse's ability to exercise her discretion is imperative. A professional community is important for making joint assessments and for determining a common strategy.

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