Weaning from ventilation needs to be tailored to individual patients and involve them

Weaning from mechanical ventilation is physically and psychologically demanding for patients, and requires nurses with expertise who can give continuity of care.

INTRODUCTION
Weaning from mechanical ventilation is defined in the literature as the process of assisting patients to breathe unaided (Knebel, 1991). It is undertaken when the patient has adequate gas exchange, appropriate neurological and muscular status, and stable cardiovascular function. The patient’s psychological readiness should also be taken into account. Knowing the patient has been identified as an important factor in the weaning process (Blackwood, 2000), and this requires expertise (Tanner et al, 1993) and continuity of care (Henderson, 1997).

LITERATURE REVIEW
The nursing literature on ventilation has addressed aspects such as: patients’ experiences of communication (Hafsteindottir, 1996); patients’ recollections of stressful experiences (Rotondi et al, 2002); and their perceptions of fatigue (Higgins, 1998). However, few studies have concentrated on the weaning process itself (Johnson, 2004; Logan and Jenny, 1997).

The concept of knowing the patient is important in all aspects of nursing (Ball and Meliliott, 2003). Many studies have been conducted to define the exact meaning of “knowing” and attempts have been made to describe and analyse how this is achieved in nursing (for example, Luker et al, 2000; Sandelowski, 1998; Scholes, 1998; Henderson, 1997). The researcher was a consultant nurse working in the unit under investigation. Further details on the method are available in Crocker and Scholes (2009).

Fieldwork was conducted in a large teaching hospital over six months. Data was collected through participant observation, focused interviews, field notes and documentary analysis of weaning protocols and educational packages.

Ethical considerations
Observation focused on nurses caring for patients who were being weaned from mechanical ventilation. Although patients were not the subject of observation and their details were never collected, they and their relatives were asked permission for care to be observed.

Written consent to be observed and to take part in informal interviews was obtained from the nurse participants at the beginning of the study and, again, verbally at every new episode of observation during the six month period.

The local research ethics committee granted approval for the study and the
hospital’s research and development department approved the governance arrangements before the fieldwork started.

Analysis
Data was analysed using content analysis (Gleser and Strauss, 1967), in which researchers identify a set of categories or themes emerging from the data, then code the body of data to see how many instances fall into each category.

Four themes emerged:
- Knowing the patient;
- The division of labour in weaning;
- Nursing visibility;
- The nursing technology relationship.

This article explores the theme of knowing the patient in relation to the literature on nursing expertise.

RESULTS
Knowing the patient
This overall theme is divided into three sub-themes:
- Ways of knowing;
- Continuity of care;
- Patients’ role in weaning.

For details, see Crocker and Scholes (2009).

Ways of knowing
Nurses implied during interviews that knowing the patient was essential to delivering individualised care. They believed they “knew their patients” in different ways from other health professionals, as the following interview extract demonstrates:

“…nurses are more holistic. Doctors come along and they see the organs and the rate and the numbers; as nurses we see the overall picture, we see the psychological, emotional and all that kind of stuff and that is good. It is important that at handover we pass that over because that is important to weaning, so that is why it is more beneficial.”

This illustrates how nurses assimilate different types of information about patients to inform practice.

Nurses recognised there were barriers that prevented them from getting to know patients. They described these in terms of difficulty communicating with them; problems in communicating about them between staff, such as relying on using paper or charts; and being busy attending to patients’ needs. Observation in practice revealed reliance on information generated by technology.

Ways of knowing refer to how information about patients is gathered and what information is elicited. Most but not all junior nurses relied on biomedical facts and tended to concentrate on patients’ illness and medical history.

Analysis of transcripts revealed that nurses spend a considerable amount of time finding information on patients through various records and documentation, rather than getting to know them through interaction.

Continuity of care
Most nurses on the unit worked 12 hour shifts (known as “long days”), resulting in fewer working days per week. There was a lack of agreement among participants about whether this prevented them from offering continuity of care:

“Long days are beneficial to all of us [nurses] but they can have a bit of a detrimental effect on patients. Nurses on today may not come back for three days so you don’t see the flow and you can lose some continuity of patient care. For example, the patient had his pressures reduced by two and he did not tolerate it. This mistake may be repeated again – whereas [if the same nurses worked every day] someone will say ‘we did that yesterday and it didn’t work’” (interview).

Although longer shifts allow nurses to plan their work, observation revealed that they delayed weaning patients who were ventilated until the afternoon so they could perform other caring duties in the morning. This reduced the length of time they were available to provide continuity of care through the weaning process. Some felt that weaning was often delayed so there could be continuity at the time.

Lack of time and multiple caregivers have also been identified as inhibiting factors in getting to know patients (Morse, 1991).

Patients’ role in weaning
Although patients’ psychological readiness to come off mechanical ventilation will affect their experience of the process and may also affect its success, no incidents were observed in which nurses engaged with patients when writing a weaning plan:

“He [the patient] has a learning disability and is prone to getting anxious so I would not tell him [about changes in his weaning], which some people say is unethical, but he has been here for 21 days and, knowing him as I do, I feel it is not worth upsetting him” (Interview).

An analysis of field notes revealed a lack of involvement of patients as active partners in weaning. There appeared to be little partnership between patients and the staff caring for them. Nurses saw patients’ progress in terms of a “weaning trajectory”, a concept taken from Lawler’s (1991) “recovery trajectory”. Interview data revealed that those being weaned were not considered stimulating or exciting:

“Weaners are not so interesting; nurses do not volunteer to go back to the patient. Critical care staff want the sick patients. Weaners are not very sick; they do not have many pumps or infusions” (interview).

DISCUSSION
The condition of patients being weaned from ventilation can change rapidly, and knowledge and skills are essential to ensure that cues of fatigue or deterioration are recognised and acted upon promptly.

However, many of the nurses in this study who were allocated to care for this group of patients were advanced beginners rather than experienced practitioners.

The literature suggests that knowing the patient requires expertise (Manley et al, 2005; Benner, 1984) and is related to positive outcomes (Radwin, 1996). Benner (1984) defined and explored expert practice, while Benner et al (1992) examined the Dreyfus model of skill acquisition, which suggests advanced beginners focus on what needs to be done for patients during the time they spend with them. These nurses feel the need to organise and prioritise tasks, and become anxious if they are unable to do this (Benner et al, 1992).

Advanced beginners do not feel that they are responsible for advanced planning and preventing critical incidents in patients, but feel responsible for completing the tasks that are ordered. Consequently, they miss subtle cues that indicate problems and continue to care in a way that does not detect these in the early stages (Benner et al, 1992).

The fact that a number of staff in critical care are advanced beginners goes some way to explain the findings in this study. Their ways of knowing are limited to those that are technologically framed and depicted by biomedical data, and continuity of care is limited.
As weaning protocols are available to support less experienced nurses’ practice, it is likely that junior staff will continue to be allocated to weaning patients. This means that patients will not be supported through the weaning process by nurses with more expertise.

“Protocolised” weaning systems that drive a technically satisfactory process may inadvertently become barriers that prevent nurses from acquiring the expertise necessary to devise individualised weaning programmes that take account of patients’ psychological readiness to wean (Blackwood, 2000) and physical capacity to support the “work” of weaning (Logan and Jenny, 1997).

REFERENCES


International Journal of Nursing Practice; 3:2, 111-118.


Study limitations

This study was conducted in one critical care unit and results cannot be generalised to other units. The researcher chose to undertake the study in her own unit and it could be argued that this is a source of bias.

CONCLUSION

Participants implied during interviews that “knowing the patient” was essential to delivering patient centred care. Two main factors are necessary for nurses to know their patients: continuity of care and expertise. However, the allocation system used in the unit prevented continuity by fragmenting episodes of care. In addition, the use of weaning protocols prevented the nurses from developing expertise.

If patients are to become active partners in the weaning process and advanced beginners are to develop expertise in tailoring weaning to individual patients, allocation systems should enable them to learn from experienced nurses, while work schedules should be organised to ensure nurses begin weaning at a time when they will be able to offer continuity of care.

The full results of all aspects of this study were first published in Nursing in Critical Care (Crocker and Scholes, 2009)