

Improving wound care teaching and learning in clinical practice

An increase in educational opportunities in wound care has not always translated into improvements in clinical practice. The problem has been finding effective teaching methods that can be easily translated into everyday practice. Tissue viability clinical nurse specialists and those who are responsible for teaching the healthcare team about advances in wound management should use an adult-centred approach and employ problem-based learning which is more suited to the clinical environment. This article explores this approach to education in practice and offers tips to educators to improve their effectiveness.

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KEY WORDS

Problem-based learning
Reflective learning
Learning by example
Adult learners
Practice education
Lifelong learning

Education has long been considered to be the quick fix to improve clinical practice and is routinely recommended in most clinical audits and service reviews. Yet, despite an exponential rise in tissue viability education since the 1990s, there has not been the anticipated changes in clinical practice and no conclusive evidence to support the assumption that education improves wound management.

It is well documented that many patients are still not benefiting from the implementation of best wound care practice despite the increased availability of educational resources. A recent study which evaluated the implementation of a wound management strategy in a community

healthcare environment in Canada over a two-year period highlighted deficiencies in care including inconsistent patient assessment, inappropriate selection of dressings and lack of rationale to support treatment choice (Hurd et al, 2008). This has also been observed in other settings by other authors (Flanagan, 2005).

In recent years, a range of short courses, study days and conferences have been developed in an attempt to update practitioners about advances in wound management, yet these courses' impact on clinical practice is difficult to evaluate. Learning is a complex process and the effects of learning are not immediate. Studies indicate that following educational interventions, confidence and knowledge is initially increased but will gradually diminish over time (Gunningberg, 2004; Kelly et al, 2004).

When the role of tissue viability clinical nurse specialist (TVN) was introduced in the 1990s they were given the responsibility of educating the multidisciplinary team about advances in wound management. The aim of education in practice is to develop a range of professional attributes including use of evidence-based knowledge, managerial and educational skills in order to facilitate

implementation of best practice, and it is an integral part of clinical governance. This paper will consider how TVNs can improve their teaching skills by applying educational theory to practice and will show that adult-centred learning techniques such as problem-based learning, reflective learning and learning by example are the methods best suited to teaching healthcare professionals in the day-to-day clinical environment.

Problem-based learning

In order to facilitate learning, educational activities need to centre on the philosophy of adult-centred learning (Knowles, 1988). As adult learners, most healthcare professionals have a desire to be self-directing and will have a good appreciation of what they need to learn (Brookfield, 1987). One of the main focuses of adult learning is the development of critical thinking rather than the teaching of facts. Those responsible for facilitating learning in clinical practice need to develop the skill of critical teaching which Shor (1980) defines as the ability 'to assist individuals to become aware of their taken-for-granted ideas about the world'. The principles outlined in *Table 1* should underpin the philosophy of teaching and learning for healthcare professionals (Kolb, 1984; Knowles, 1988).

Table 1**Principles of teaching and learning for adult learners**

- » Professional knowledge and past experiences of adult learners are important and should be valued
- » Adults learn best when they are active participants
- » Adults learn when they need to know something and want information to be relevant to their day-to-day work
- » Adults need to learn experientially and value the opportunity to practise skills
- » Teaching methods should be adapted to suit the learning styles and preferences of participants
- » Learning needs to be reinforced as retained knowledge decreases over time.

Problem-based learning (PBL) is a term used to describe a range of adult-centred learning approaches that encourage participants to learn through the exploration of a problem. It makes learning more student-centred, experiential and activity-based and is therefore well suited to the clinical learning environment. PBL is thought to promote critical thinking and other work-related skills that are important for professional practice such as teamwork and clinical reasoning (Barrows and Tamblyn, 1980; Maudsley and Strivens, 2000; Schmidt et al, 2006). It does not necessarily increase the content of someone's knowledge but hopefully leads to more effective problem-solving and application of theory to practice. Teaching using a PBL approach is more challenging than a quick Powerpoint presentation on the stages of wound healing to a potentially non-attentive audience. This traditional lecture format is criticised for its emphasis on the learner's passive receipt of knowledge rather than encouraging them to learn through critical thinking (Biley and Smith, 1998; Alexander et al, 2002) and is unfortunately

the approach most often used by inexperienced teachers in an attempt to demonstrate how much they know.

It takes confidence to adopt a PBL approach to teaching and it takes time to plan sessions, but the rewards are worth the effort. Critical teaching can be unpredictable which is part of its appeal and it always proves interesting as very few sessions are identical. Examples of a PBL approach include facilitation of reflective group work by reviewing the management of a patient with a complex wound where different groups are presented with different information, or considering management options from the perspective of different members of the multidisciplinary team, or giving a group the task of discussing the implications for local practice of a Cochrane review or national guidelines. PBL allows participants to systematically work through a problem and apply newly acquired information as well as being active participants during the learning process. Mature students are known to prefer student-structured learning and like to focus on principles that might prove useful in everyday practice rather than focus on facts (Clare and Van Deursen, 2002; Kaufman, 2003). So it does not make sense to replicate a traditional, lecture format for teaching when with a bit of planning, TVNs can make use of a range of dynamic real-life clinical situations to make learning relevant and real.

With practice, PBL tutorials require no additional resources and can be pulled 'out of the hat' in response to valuable learning opportunities to provide what Brookfield calls the 'teachable moments' that facilitate critical thinking (Brookfield, 1987). The use of patients or staff as triggers for a five-minute impromptu teaching session can be more effective than an hour-long lecture (Neher and Stevens, 2003). The value of real-life teaching is that it brings a realistic complexity and empathetic dimension to the learning experience that is

often missing in traditional teaching approaches (Danamers et al, 2001).

Reflective learning

Reflective learning has been associated with a deeper style of learning and better personal insight and is defined as 'a purposeful form of thought provoked by unease in learners when they recognise that their understanding is incomplete' (Dewey, 1933; Ausubel, 2000). Some practitioners find reflection difficult and uncomfortable so it can be beneficial to incorporate reflection into teaching style so that colleagues see it as a natural part of learning. Teachers should get used to vocalising their own reflections so that learners can 'see' reflection in action. One of the easiest ways to do this is to facilitate group discussions which can take place in any setting and are particularly effective in the clinical environment. This can take many forms including critical incident analysis which can allow participants to safely discuss their thoughts and feelings about a challenging situation they have experienced.

Studies demonstrate that reflection is an essential skill for health professionals as it helps them to 'make meaning' out of their own experience and apply new knowledge in similar situations (Sobral, 2000; Grant et al, 2006).

One of the biggest challenges of facilitating learning in the clinical environment is that learners vary in age, maturity, academic and professional experience. *Table 2* summarises practical teaching tips based on an appreciation of learning theory that will help to improve the learning experience for adults and encourage them to take increased responsibility for their own learning.

Learning by example

It has always been easy to criticise formal education as not being clinically focused or taught effectively rather than acknowledging that today's clinical environment is rarely conducive to teaching and learning

Table 2

Teaching tips to improve the learning experience for mature learners

- » Assess participants prior knowledge
- » Make content relevant and applicable to real life
- » Make the most of the learning opportunities available
- » Use varied and collaborative activities
- » Focus on principles rather than facts
- » Encourage self-directed, student-led learning
- » Be flexible
- » Reinforce learning and provide constructive feedback
- » Evaluate all educational activities

and that practitioners are often unreceptive to learning as they are busy, stressed and exhausted. The role of the wider organisation in creating a climate that fosters good practice has been known about for some time (Lucker et al, 1995; McKenna et al, 2003). One key factor is organisational stability, yet health services are in a constant state of flux which has a detrimental effect on the learning environment. Adults will learn more readily from their own experience and from those around them rather than from books and journals (Lucker and Kenrick, 1995; Boxter and Maynard, 1999) so the environment they work in is crucial to their continued learning.

One of the consequences of increased pressure in the workplace is that there are less positive role models for health professionals to base their practice on. It is therefore essential that TVNs appreciate the importance of role modelling and lead by example. TVNs should be research literate, knowledgeable about practice, policy and organisational issues. They are widely respected, and

communicate effectively across the wound management community so they are in an ideal position to bridge the 'theory-practice gap' and influence peers, colleagues and the organisations in which they work.

Evaluating problem-based learning

There is some evidence to support the belief that PBL provides learners with better overall critical thinking skills and the ability to work more effectively compared with traditional teaching methods and that this is sustained over time (Cooke and Moyle, 2002; Tiwari et al, 2006). Both of these studies evaluated participant's critical thinking skills over time and compared it with students who had been exposed to a traditional non-PBL approach. Tiwari et al (2006) followed up nursing students over three years and found significant differences in the development of critical thinking. This was measured using the Californian Critical Thinking Disposition Inventory (CCTDI).

It is standard practice to evaluate educational activity by asking participants to complete a form at the end of the session which cannot provide any insight about how new knowledge and skills will be transferred to clinical practice — or for how long. A more valuable way of evaluating the effectiveness of teaching and learning in the long term is by direct observation of clinical practice, comparison of clinical audit data and monitoring compliance with clinical guidelines and whether these changes are reflected in patient outcomes (Sinclair et al, 2004). Sinclair found that knowledge of pressure ulcer prevention among nursing staff had decreased three months after a taught education programme and needed to be reinforced frequently in clinical practice. The literature supports the case for 'rolling' educational programmes and 'top-up' sessions for staff who have previously attended educational activities because frequently repeated exposure to education is required to 'top-up' the

knowledge base of healthcare staff (Snell et al, 2000; Gunningberg, 2004).

Conclusion

Professional education is recognised as an expensive resource which is expected to be flexible, innovative and clinically relevant to meet the diverse learning needs of a demanding inter-professional audience. In wound management there are many excellent examples of collaborative educational initiatives between clinicians, practice educators, industry and academic institutions which should be encouraged to develop partnerships capable of producing opportunities for effective lifelong learning.

Pre-registration training programmes are increasingly incorporating PBL strategies into the curriculum so future generations of newly-qualified health professionals including nurses, doctors and podiatrists will be familiar with this approach. The majority of TVNs are products of predominantly teacher-centred learning yet have the ability to acquire the skills required to facilitate critical teaching using a PBL approach. A postgraduate certificate in education (PGCE) is a useful qualification that can improve confidence by developing teaching skills. PGCE courses are available at universities throughout the UK and can be studied via flexible distance learning to fit in with existing commitments and will greatly contribute to the professional development of specialist nurses who have a key role in educating others. Although not routinely funded, TVNs should be encouraged to request this at their appraisals as teaching and learning are a key element of their role.

Lifelong learning contrasts sharply to the short, didactic approach of traditional in-service training sessions which may incite initial enthusiasm but rarely facilitate lasting changes in clinical practice. All those with a responsibility for education in practice need to carefully review

their own teaching skills and embrace contemporary learner-centred, interactive approaches to problem-based learning. If this is done, teaching will become more enjoyable and students — and patients — will thank you. **WUK**

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Key Points

- ▶ Tissue viability nurses should develop and update their teaching and learning skills to enhance their own professional development and facilitate changes in clinical practice.
- ▶ Problem-based learning (PBL), reflection and learning by example are effective approaches for educating healthcare professionals and are excellent ways of demonstrating the application of theory to practice.
- ▶ PBL works most effectively when used to complement other teaching methods and can be used to develop ideas presented in formal lectures. It should be used as another tool in the teaching repertoire as a stimulating and energising alternative to traditional teaching.
- ▶ Adult-centred learning helps promote development of professional knowledge acquisition and critical thinking which are fundamental to professional practice and are attributes of life-long learning.
- ▶ Tissue viability nurses should develop links with academic institutions, other practice educators, clinicians and industry partners to make the most of teaching and learning opportunities.