# Improving care through evidence-based practice

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As wound carers we are faced with many challenges on a daily basis. These not only include managing our patient case load, but also teaching both family care givers and our colleagues. Traditionally, wound care has been taught through case examples and best clinical practice. However, with the increased importance of providing evidence-based practice, we have now moved from random clinical practice experiential learning, with traditional ungrounded opinions, to learning based on evidence. Such evidence ranges from expert opinion to comparative studies and randomised controlled trials (Krugman, 2003).

Further analysis of the available evidence is often required before extrapolating research into evidence-based clinical practice. For example, several randomised controlled trials are often analysed together in a systematic review and, if the studies have similar inclusion and exclusion criteria, they are pooled together in a meta-analysis that strengthens the evidence behind the clinical wound care practice.

David Sackett has insightfully defined evidence-based medicine as the combination of the experimental evidence, expert opinion, and patient preference (Sackett et al, 1996).

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Such analysis is common place in the evaluation of many clinical practices, but have we ever considered using the same scrutiny that we apply to clinical practice to the way we teach wound care? And should we?

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Davis et al (1995) reviewed 14 randomised controlled trials of formalised medical education and concluded that only sessions with interactive teaching methods, that often facilitated the practice of skills, are likely to change practice and health care outcomes. This tells us that traditional techniques of lecturing in a classroom are unlikely to change how health care professionals practice.

So what does it take to change clinician performance and health care outcomes? A larger review of 99 randomised controlled trials identified strategies that are more likely to work and that if an educational programme included more than one of the effective strategies (Davis et al, 1995) they were more likely to be successful:

*Effective*

- Reminders
- Patient-mediated interventions
- Outreach visits
- Opinion leaders or champions

*Less Effective*

- Passive patient audit with feedback
- Printed educational materials

*Little Impact*

- Formal conferences.

So, if we are going to link education to outcomes, we need to

**Table 1**
**Adapted Dixon (1978) Framework**

| | Quantitative | Qualitative |
|---|---|---|
| 1. Opinions | Happiness index | Structured interview focus group |
| 2. Competence | Pre-test/post-test | Survey, interview |
| 3. Clinical | Prescribing data | Explore barriers to change |
| 4. Health outcomes | Clinical end-point | Quality of life interviews |
| 5. Economic | Pharmaco-economic studies | Costs from case studies |

pay more attention to evaluation. Dixon (1978) outlined four levers of evaluation in a framework that included suggestions for qualitative and quantitative measurement. The adaptation of the Dixon framework adds economics as an additional measurement parameter (Sibbald et al, 2002)(*Table 1*).

We are all good at completing an evaluation at the end of a course or an educational meeting, providing our opinions on the facility, food or the entertainment value of the speaker. Occasionally we use a pre-test or post-test to measure if we have learnt something new, or include secondary strategies or enablers to be sure that our new knowledge reaches the bedside and becomes appropriately integrated into our patient care routine. But how often do we measure comparative healing rates to see if we have actually improved patient outcomes or have been able to integrate change in a cost-effective way to improve the health care system?

Quantitative studies measure 'the what', and qualitative studies are important to explain 'the why' strategies and to ensure that new practices are successful or in need of fine tuning, thereby avoiding failure.

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This is an emerging approach in wound care and, as such, The World Union of Wound Healing Societies in Toronto 4–8 June 2008 will be dedicated to the summary of the education and wound care evidence so that wound care practitioners, nurses, doctors, and other health care professionals can translate this up-to-date evidence into everyday practice. Adoption of more evidence-based practice, both clinically and educationally, will significantly improve the care we can provide. **WUK**

Davis D, Freemantle N, Wolf FM, Mazmanian P, Taylor-Vaisey A (1999) Impact of formal continuing medical education: do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? *JAMA* **282:** 867–74

Davis DA, Thomson MA, Oxman AD, Haynes RB (1995) Changing physician performance. A systematic review of the effect of continuing medical education strategies. *JAMA* **274:** 700–5

Dixon J (1978) Evaluation criteria in studies of continuing education in the health professions: a critical review and suggested strategy. *Evaluation and the Health Professions* **1:** 47–65

Krugman M (2003) Evidence-based practice The role of staff development. *Journal for Nurses in Staff Development* **19(6):** 279–85

Sackett DL, Rosenberg WMC, Gray JAM, Haynes RB, Richardson WS (1996) Evidence based medicine: what it is and what it isn't. *Br Med J* **312:** 71–2

Sibbald RG, Davis D, Rath D (2002) Effective adult education principles to improved outcomes in patients with chronic wounds. In: Krasner DL, Rodeheaver GT, Sibbald RG. *Chronic Wound Care: A Clinical Source Book for Healthcare* ***Professionals,*** Third Edition. Wayne PA Health Management Publications Inc: 25–34