

*The developing role of the nurse in
wound management: Research*

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Background

- I qualified in 1978 (RGN, NDN Part1 Obs)
- Graduated from Newcastle upon Tyne Polytechnic the in last cohort of a 10 year experiment – 1979 (HV, Dip). 4 year course
- Staff Nurse on a surgical ward 1979
- Ward Sister within 2 years in 1980
- Interested in complex abdominal surgery, wounds and dressings
- Into research in 1982 and one of the 1st CNSs in UK through a research track
- Started with research, whilst developing practice underpinned by education in South Wales
- By mid 1980s had began to link in with other nurses

What patient care looked like in the 1980s

For patients with leg ulcers:

- No lower limb assessment
- Eusol soaks x3 weekly
- Little or no compression
- No access to specialist nurses or services

For patients with surgical wounds:

- Eusol packing x2 daily
- When x1 daily stuck
- Patients stayed on ND caseload with limited way back
- Same system for patients with diabetic foot ulcers and pressure ulcers
- **Generally**, gauze and Eusol, limited assessment, care planning and services
- Painful, costly and ineffective
- Wound healing a real Cinderella subject
- Current practice not challenged
- Very little evidence base for practice
- Little research published



Hierarchy of research evidence

- Randomised controlled trial (RCT)
- Controlled trial
- Quasi-experimental
- Non-comparative
- Case study and case study series
- Case report and anecdotal reports



Challenges of wound healing research

- Need to generate evidence of efficacy of wound healing interventions
- Not many researchers available and interested
- Case reports, case studies and cohort studies common in wound healing in early days
- Study design a challenge due to the nature of wound healing interventions
- Need to consider the practical and resource issues related to designing wound healing research trials
- Difficult to 'blind' patients to treatments when designing randomised controlled trials
- Patients and healthcare staff can easily see the physical differences between study dressings, mattresses, compression bandages etc

Experiences in academia

- My first posting as a Research Assistant in the Academic Department of Surgery UHW
- Did not have a research nurse JD in an Academic Department of Surgery
- Had to find my own way around the system
- I knew almost nothing about research
- Main role was in informing the design of an RCT
- Then to recruit patients and enter data
- Very much had the freedom to develop the post into whatever I felt worked best
- Also to provide an inpatient advisory service for patients with wounds
- Also to help in a wound clinic
- My colleagues were surgeons doing their MD and lab staff supporting academic surgical research
- It could have been an alien environment but everyone was very welcoming

First experience in wound healing research 1982

- Creese, A.L., Bale, S., Harding K.G., Hughes, L.E. (1986) Management of open granulating wounds, *The Physician*, 5, 637-639.
- Design - randomised controlled trial
- Investigated the costs and outcomes of using two dressing regimes in cavity wounds managed in the community - gauze packing and Silastic Foam Dressing
- Randomisation was by site (3 DN areas were controls and 3 were intervention)
- My role was to find patients with cavity wounds and approach them to see if they would be interested in taking part in this study
- Needed 200 patients (100 in each group)
- All data were entered by hand into one of the first computers using 00 codes
- Very exciting to be working with community nurses, district nurses and practice nurses
- Was able to source patients from the wound clinics too
- Variety in the community on the enthusiasm for this research project

Gauze packing versus new foam dressing



Results

- Costs of dressing products were not significantly different
- Gauze very cheap and Silastic Foam much more expensive
- Nursing time was the most expensive element in doing dressing changes in the community
- Often twice daily dressing required for gauze packing
- Patients using Silastic Foam could do their own twice daily dressings, with weekly visits by DN
- Most cost related to the number of times that dressings needed to be changed
- No difference in the length of time to healing or the frequency of complication rate, but patients in the Silastic group were markedly more comfortable

Value

- This study was the first wound healing RCT to be carried out in the community
- No idea that this type of study hadn't been done before
- It illustrated the complexity of measuring the cost of wound care. At the time data was being collected (1983) gauze packing cost about 14p per packet and Silastic Foam Dressing about £3.00
- It highlighted the cost of delivering wound care in the community
- Provided evidence to allow a new technology onto GP prescription FP10
- The first of several studies that enabled patient access to new dressings and bandages

Examples of other designs

- Bale (1989) Community nurses awareness of dressing materials. *Care: Science and Practice*, 7,4, 90-92
- Bale and Harding (1987) Fungating breast wounds. *Journal of District Nursing* 8, 10 4-5
- Bale *et al* (1999) Clinical evaluation of a new pressure relieving mattress. *Journal of Wound Care* 8, 10, 520-524
- Bale, S, Finlay, I and Harding KG (1996) Pressure sore prevention in a hospice. *Proceedings of the 5th European Conference on Advances in Wound Management*
- Bale, S., Tebble, N., Jones, V., Price, P. (2004) The benefits of implementing a new skin care protocol in Nursing Homes. *Journal of Tissue Viability*, vol 14, no 2, 44-50
- Bale, S (2004) Using different research designs in wound healing research. *Nurse Researcher*, vol 11, no 4, 42-53
- Hopkins, A., Dealey, C., Bale, S., Defloor, T., Worboys, F. (2006) Patient stories of living with a pressure ulcer. *Journal of Advanced Nursing* 56, 4, 345–353
- Bale, S. (2012) Preventing skin damage: A Welsh perspective. *Wounds UK*, 8 (3), 74-81

Career history

- Wound Healing Society 1986 with UK colleagues (Carol and Madeline)
- Supported the development of services and nurses in UK and beyond. Visits from Australia, USA and across Europe
- BA helped to provide an academic base 1988
- Journal of Wound Care, EWMA, EPUAP (Council) 1990s
- Post doc into mainstream nursing and midwifery Assistant Nurse Director (R&D)
- RCN Fellowship 2003
- 2103 New Years Honour list OBE
- 2014 R&D Director leading research in ABUHB and regionally SEWAHSP
- MSc and PhD supervisor and other mentoring
- Incoming EWMA President May 2017

Contribution to patient care through the generation of evidence, education and practice development

Research

Since 1980:

- 128 articles in peer reviewed journals
- 24 books and chapters
- 134 international and national oral presentations at conferences
- Hundreds of research studies employing a broad range of methodologies (quantitative: RCT, cohort, case series) (qualitative: survey, phenomenology, ethnography)

Summary for research

- Had fantastic opportunities
- At first felt isolated
- At first felt way out of my depth
- Over time found out about Carol, Madeline and others
- Built a hugely supportive network around me
- Hopefully supported others too, a great joy
- Felt that I was right in the 'cut and thrust' of wound healing research
- Able to contribute to the development of research in an emerging specialty
- Able to influence the types of research going on
- Been wonderful to reflect on this experience for this day
- Have friends for life across UK, Europe and internationally