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# Understanding Dressing Evaluation: a pragmatist perspective

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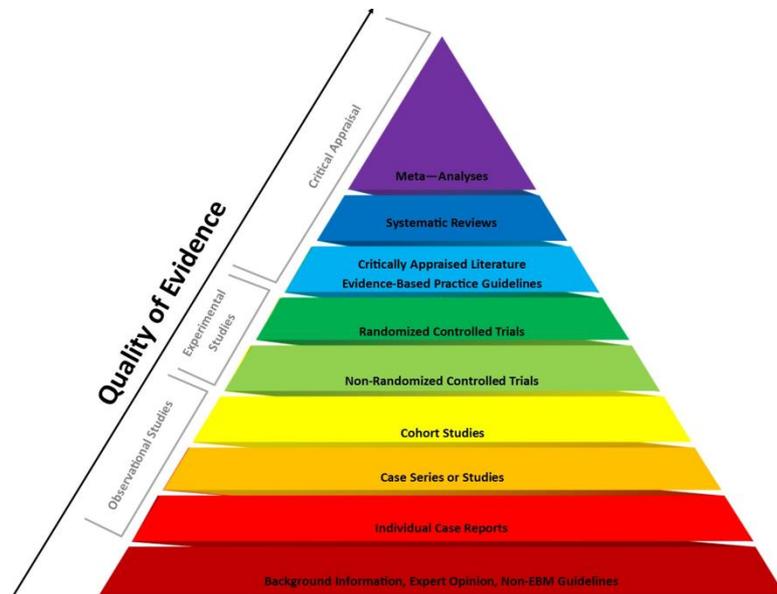
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# Background

- By law, wound care dressings are listed under a section called Medical Devices
- Dressings are CE marked and safe to be used in the context for which they have been designed for
- Manufacturers are not required to provide evidence of effectiveness similar to those required with medicines
- There is little incentive for industry to fund large trials and there is no central funding allocated to dressing evaluation
- Evidence for clinical practice is limited.

# Evidence – trial methodologies

- Challenges with the methodology
- Difficulties with,
  - a. controlling variables associated with co-morbidities
  - b. calculating sample sizes to achieve statistical significance
  - c. recruiting enough patients that meet the inclusion criteria
  - d. validating infection versus inflammation
  - e. measuring wound sizes
  - f. validating subjective assessments such as 'comforts' and 'user friendliness'.



# The Study

- **Research question:** *'How are dressing evaluations undertaken in clinical practice?'*

- **Aims:**

To explore,

- i. how dressing evaluations had been undertaken in clinical practice
- ii. a different pragmatic methodology to undertake dressing evaluation, with a new understanding to the elements that clinicians believed should be included
- iii. the application of the new methodology to a real-life practical evaluation using the new methodology.

# Philosophical Perspective

- Pragmatism (Peirce (1836); James (1842-1910) and Dewey (1859-1952))

## John Dewey brand of pragmatism

- ‘a rejection of the idea that science and practice are different’
- Experimentalism
- ‘physical science (knowledge is objectivised and reducible) and social and human aspect (knowledge is relative and contextual)
- Knowledge includes experience
- Beliefs in *melioristic* experimentalism and *fallible*

# Methodology

- 3-phased mixed-method study,  
QUAL → QUAL → MM
  - a. Focus group/in-depth interviews with TVNs and Pharmacists. Data were analysed using thematic analysis
  - b. The same data were analysed searching for themes relating to elements that the participants believed should be included in an ideal dressing evaluation
  - c. Application of the above elements in a real life dressing evaluation.

# Findings

- Data analysis revealed an 'expected level of evidence' and an 'accepted level of evidence' when selecting dressings for wound care
- TVNs had a limited understanding of the empirical research process but they were quite aware that their evaluation methodologies were not academically rigorous
- Pharmacists were research-process knowledgeable but ambivalent to how evaluations were undertaken.

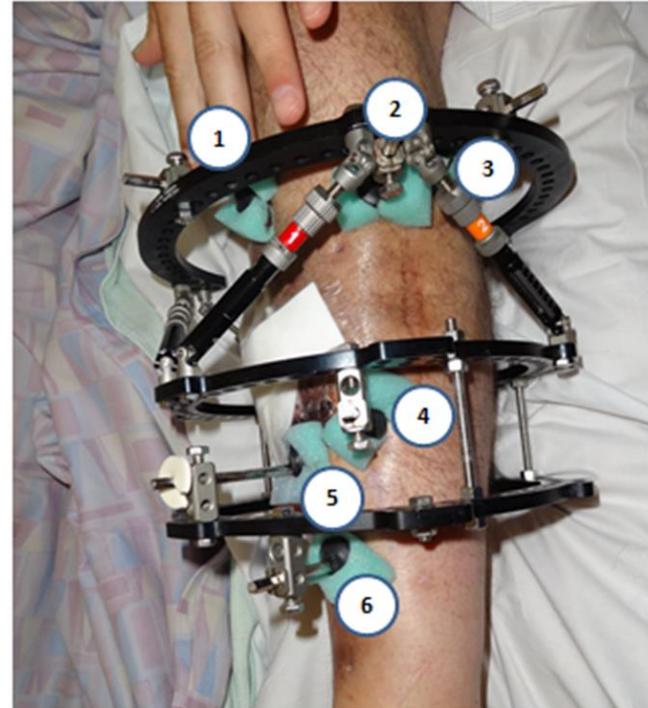
# Findings

- Further data analysis defined the elements that were clinically important to clinicians
- These should be included in a pragmatic dressing evaluation framework,
  - (a) medical histories and patients' histories
  - (b) participant observations of nurses with patients
  - (c) informal interviews with nurses and patients, at the same time
  - (d) comparative study – new dressing versus standard care
  - (e) patients' Likert survey
  - (f) staff survey
  - (g) examination of costs
  - (h) evaluation of the packaging and product procurement route.

# Findings

- The clinical context was the evaluation of a PHMB discs\* in the care of pin sites used after the application of external fixators in the treatment of traumatic fractures
- Standard care: Kurgan protocol +/- variations on the theme
- Findings were discussed at the consensus meeting with key clinical decision-makers
- Develop a new protocol for clinical practice.

\*Kendall™ AMD antimicrobial foam discs, H&R Healthcare Ltd, Hull



Observation  
Sponges applied.  
Little space between pins.  
Wound in between pin sites, difficult to access.  
Patient's hands close to wounds

# Clinical observation in wound care research

- Significant discrepancy between how standard practice was undertaken and what was reported
- Wound care researchers need to spend time observing clinical practice

# Output

- Despite the lack of empirical evidence, dressings are used to treat wounds
- Selecting the appropriate ones must be based on rigour.
- ***A unique contribution to knowledge:*** a framework for dressing evaluation where clinician's experience is given a key place within a structured inquiry
  - This framework has been used in a number of national dressing evaluations (Shelford TV Group).
- ***A unique contribution to clinical practice:***
  - Development of a clinical protocol for the care of pin sites that has been adopted regionally.

# Output

- Pagnamenta F, Lhussier M (2018) Viewing dressing evaluation through a pragmatic lens: The application of Dewey's experimentalism in the development of evidence for dressing selection. *Journal of Evaluation in Clinical Practice*, 1-7.
- Pagnamenta F (2017) Evidence generation for wound care dressing selection: reviewing the issues. *Journal of Wound Care* 26(9), 545-550.
- Pagnamenta F, Lhussier M Breaking the power dance: a qualitative study exploring how Tissue Viability Nurses select dressings for the Wound Management Formulary. *Journal of Research in Nursing (Submitted Dec 2019)*.