Barriers and enablers to evidence-based care for laparotomy wounds: A scoping review

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1. Introduction

- A laparotomy procedure is a large midline surgical incision into the abdomen to expose the peritoneal cavity (Figure. 1). [1-3]
- Emergency or elective laparotomy procedures have a heightened risk of complications, variable recovery outcomes and increased mortality rate.[1,3-6]
- Australian acute care nurses' decision-making regarding surgical wound dressing selection has relied on practice-based knowledge rather than evidence-based care (EBC) and practice in previous studies. [17,18,21-28,43]
- An evidence gap in surgical site infections (SSIs) associated with laparotomy wounds and EBC of surgical wounds has been identified.[12-14] This has been exacerbated by the COVID-19 pandemic, with an increase in presentations requiring emergency laparotomy procedures. [44-45]
- There is a need to understand the barriers and enablers arising in acute care nurses' ability to provide EBC with a novice workforce with limited experience in managing laparotomy wounds.

2. Aims

- To systematically search and synthesise available data on barriers and enablers to EBC for patients with laparotomy wounds reported by acute care nurses.
- Focus on: wound assessment, infection control techniques, wound products used, escalation of care dressing application, documentation and holistic care.

3. Methods

- Conducted in June 2023.
- PRISMA and Meta-Analyses extension for Scoping Reviews Checklist (Figure 2.).
- Search methods: Ovid Medline, CINAHL, Embase and grey literature sources.
- Quality appraisal: MMAT, STROBE, COREQ
- Methodology frameworks: Arksey and O'Malley, Levac et al.
- Data synthesis: Theoretical Domains Framework (TDF).

4. Results Summary

- Six studies (cross-sectional, mixed methods and qualitative descriptive)
- Results from the Beliefs about capability domain reported distinct differences in the studies conducted in Australia and European countries compared to Vietnam.
- The key barriers to EBC were limited tertiary nursing training in developing countries, inaccessible policies and assessment tools, negative ward culture, a lack of skills, time, documentation and knowledge in wound management, especially related to infection prevention and control.
- Barriers resulted in acute care nurses developing ritualistic practice behaviours.
- The main enablers to EBC were aligning holistic wound management principles and assessment findings with wound policy guidelines, comprehension of potential risk factors in surgical wound recovery, engaging in reflective practice, and considering the beneficial impact of nutrition and mobilisation to promote positive wound healing outcomes.
- Valuing education was believed to enable the delivery of evidence-based wound care management

Most frequently reported emerging TDF domains and constructs in the results

Domain	Construct	Results
Knowledge	*Procedural knowledge*	Enabler: differentiation of inflammatory phases from signs of infection and understanding wound healing phases
Skills	*Practice*	Barrier: holistic wound assessments not incorporated into dressing change procedure
	Skills assessment	Barrier: not using standardised, evidence-based tools to evaluate wounds
Beliefs about consequences	*Characteristics of outcome expectancies*	Barrier: changing dressings without assessing risk factors of failed /prolonged wound healing
Environmental context and resources	*Environmental stressors*	Barrier: allocating insufficient time to perform wound care
Beliefs about capability	*Perceived competence*	Enabler: safely move a patient after abdominal surgery out of bed to mobilise, and provide patient education to protect wounds from stretching and prevent harm to the incision line

Full table of results available via QR code

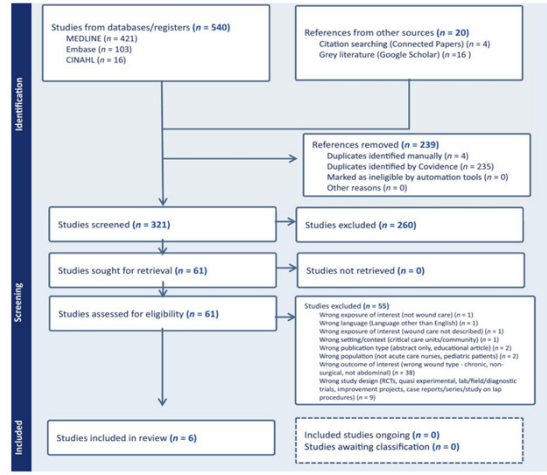

Figure 2. Preferred Reporting Items for Systematic Reviews and Meta-Analyses. P.R.I.S.M.A. 2020 flow diagram for new systematic reviews, which included searches of databases, registers and other sources.

5. Conclusion

- Acute care nurses are not accessing and applying evidence-based resources for laparotomy wound management, potentially due to a lack of available and consistent evidence-based recommendations.
- The results indicate a need for standardising laparotomy wound care practice whilst acknowledging the current challenges faced in the clinical ward environment

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