Evaluating the impact of simulated multidisciplinary trauma team training on patient outcomes and team performance to inform translation to clinical practice

---

Ms Margaret Murphy

ED Clinical Nurse Consultant, WSLHD

&

PhD Candidate, The University of Sydney

Acknowledgements

Professor K. Curtis & Dr A. McCloughen
Sydney Nursing School, The University of Sydney

Emergency Department and Trauma Services,
Westmead Hospital

Background

Simulation is used to train teams

Do frontline staff use the training in real-life trauma resuscitations?

Study Rationale/Background

Does it produce a high performance team?

Evidence

Australasian Emergency Nursing Journal (2016) 19, 44–53

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/aenj

LITERATURE REVIEW

What is the impact of multidisciplinary team simulation training on team performance and efficiency of patient care? An integrative review

Margaret Murphy, RN, MHlthSc (Ed)[a,b,*]
Kate Curtis, RN, PhD[a,c]
Andrea McCloughen, RN, MN (Mental Health), PhD[a]

[a] Sydney Nursing School, University of Sydney, Australia
[b] Emergency Department, Westmead Hospital, Australia
[c] St George Hospital Trauma Service, Australia

Received 23 April 2015; received in revised form 7 October 2015; accepted 14 October 2015

- Training improves teamwork
- Limited evidence

Study aim

- Evaluate the effects of TTT on patient outcomes and team members experience of teamwork in real world trauma resuscitations

- Generate evidence for training trauma resuscitation teams.

Intervention

- Simulation
- Multidisciplinary
- 324 staff

Methods

QUANTITATIVE

Pre-post study

- Time to critical operations
- Mortality

QUANTITATIVE

Survey

- Facilitators
- Barriers

Qualitative

Interviews

- *Experience*
- *Perspective*

Results: Patient outcomes

Injury, Int. J. Care Injured xxx (2017) xxx–xxx

Contents lists available at ScienceDirect

Injury

journal homepage: www.elsevier.com/locate/injury

Simulation-based multidisciplinary team training decreases time to critical operations for trauma patients

Margaret Murphy[a,b,*], Kate Curtis[a,c], Mary K. Lam[d], Cameron S. Palmer[e,f], Jeremy Hsu[g], Andrea McCloughen[a]

•	Pre (n)	Median (IQR)	Post (n)	Median (IQR)
	1116		1273	
ED to Critical Operation (hrs: mins)				
Overall	141	2.63 (1.23-5.12)	149	0.55 (0.22-1.27)

Results: Staff survey

Injury, Int. J. Care Injured 50 (2019) 1147–1152

Contents lists available at ScienceDirect

Injury

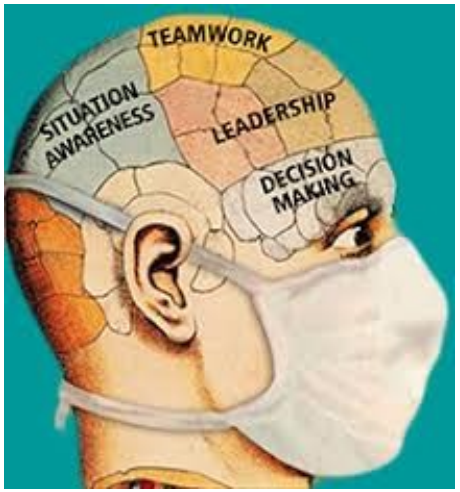
journal homepage: www.elsevier.com/locate/injury

Facilitators and barriers to the clinical application of teamwork skills taught in multidisciplinary simulated Trauma Team Training

Margaret Murphy[a,b,*], Kate Curtis[a,c], Andrea McCloughen[a]

[a] Sydney Nursing School, University of Sydney, Australia
[b] Emergency Department, Westmead Hospital, Australia
[c] Emergency Department, Illawarra Shoalhaven, Australia

Results: Interviews



Australasian Emergency Care 22 (2019) 1–7

Contents lists available at ScienceDirect

Australasian Emergency Care

journal homepage: www.elsevier.com/locate/auec

Research paper

The impact of simulated multidisciplinary Trauma Team Training on team performance: A qualitative study

Margaret Murphy[a,b,*], Andrea McCloughen[a], Kate Curtis[a,c]

[a] Sydney Nursing School, University of Sydney, Australia
[b] Emergency Department, Westmead Hospital, Australia
[c] Emergency Department, Illawarra Shoalhaven, Australia

Results: Integration

To turn a group of strangers into a team

team • ing (v.)

Teaming is teamwork on the fly

Australasian Emergency Care 21 (2018) 143–149

Contents lists available at ScienceDirect

Australasian Emergency Care

journal homepage: www.elsevier.com/locate/auec

Research paper

Enhancing the training of trauma resuscitation flash teams: A mixed methods study

Margaret Murphy[a,b,*], Andrea McCloughen[a], Kate Curtis[a,c]

[a] Sydney Nursing School, University of Sydney, Sydney, NSW, Australia
[b] Emergency Department, Westmead Hospital, Westmead, NSW, Australia
[c] Emergency Department, Illawarra Shoalhaven, Australia

Key findings

1. Measurable improved patient outcomes
2. Teamwork training is used in clinical practice
3. Training program for a ‘flash’ team
4. Implementation strategy

Key ‘helpful’ message

- Theory was helpful in informing dissemination activities
  - theoretical domains framework

    (Cane, O’Connor, & Michie, 2012)
  - behaviour change wheel

    (Michie, Atkins, & West, 2014)
  - behaviour change techniques

    (Atkins, L., Francis, J., Islam, R., et al., 2017)