The impact of pressure ulcer prevention education on health care assistants' knowledge and skills and pressure ulcer incidence in long-term care settings



RCSI DEVELOPING HEALTHCARE LEADERS WHO MAKE A DIFFERENCE WORLDWIDE

1. Introduction

- Older adult patients are susceptible to pressure ulcers due to the presence of co-morbidities and reduced mobility¹.
- Health care assistants represent most of the workforce in long-term care settings and play a significant role in pressure ulcer prevention².

2. Review Question

What is the impact of pressure ulcer education on health care assistants' knowledge and skills?

3. Methods

- We used the Preferred Reporting Items for Systematic **Reviews and Meta-Analyses (PRISMA) guidelines to guide** the conduct and reporting of the review.
- Five databases were searched in November 2021.
- Quality appraisal was undertaken using the Evidence-based Librarianship checklist (Glynn, 2006).
- Data was analysed narratively and using meta-analysis.

4. Results

- 14 studies met the inclusion criteria.
- 6 different types of educational interventions were used.
- Four studies found an improvement in mean knowledge scores in favour of the education intervention group (MD: 5.73 (95% CI: 1.38-10.08; *p*=0.010).
- In 5 studies pressure ulcer prevalence was 7% pre-education and 4% post-education (OR: 1.69, 95% CI: 1.12-2.54; p= 0.01).
- In 7 studies pressure ulcer incidence was 9% pre-education and 4% post-education (OR: 2.20, 95% CI: 1.50-3.22; p=0.0001).

O'Brien N¹, Moore Z¹, Avsar P¹, Nugent L¹, Budri A¹, O'Connor T¹.

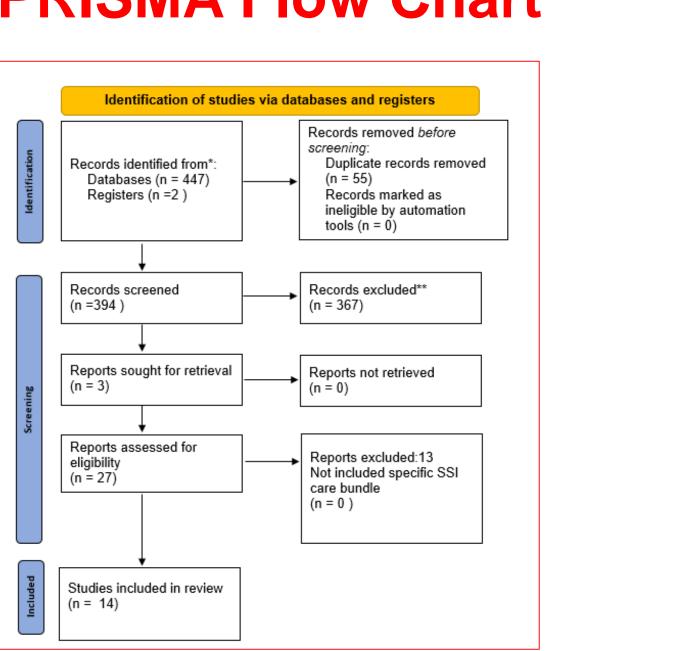
¹Skin Wounds and Trauma (SWaT) Research Centre, School of Nursing & Midwifery, Royal College of Surgeons in Ireland, University of Medicine and Health Sciences, Dublin, IE;

Key Messages

Educating health care assistants positively influences knowledge & practice in pressure ulcer prevention.

Health care assistants are essential & need education to develop their knowledge & skills in pressure ulcer prevention.

PRISMA Flow Chart



Forest Plot: Mean difference in knowledge scores

	Edu	Education				
Study or Subgroup	Mean	SD	Total	N		
Sinclair et al. 2004	32.55	6.71	59	1		
Hayes et al 1994	89.22	3.8	48	ε		
Kwong et al 2011	25.46	1.95	41	2		
Kwong et al. 2020	23	2.14	51			
Total (95% CI)			199			
Heterogeneity: Tau ² =	: 19.06; C	Chi²=∶	124.01,	, d		
Test for overall effect:	Z = 2.58	(P=0)).010)			

Forest Plots: OR of PU Development: A: Prevalence; B: Incidence

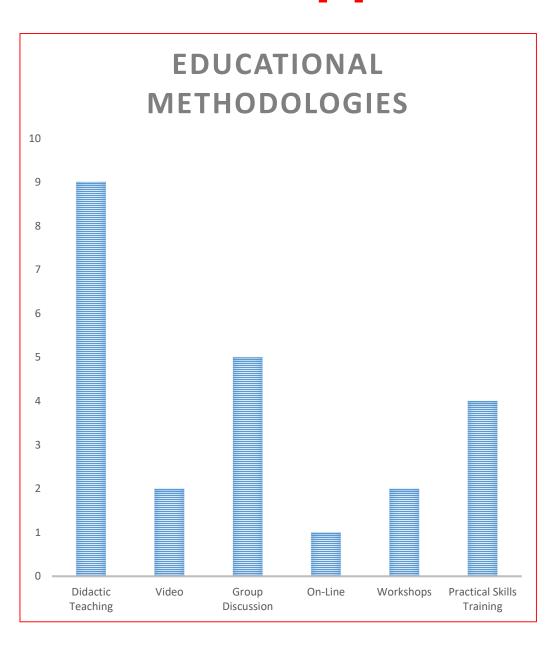
	pre education		post education		Odds Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	
Cross 2016	28	404	20	404	48.1%	1.43 [0.79, 2.58]	
Howe 2008	6	250	4	250	10.3%	1.51 [0.42, 5.43]	
Murray 2012	17	153	11	150	26.6%	1.58 [0.71, 3.50]	
Keen 2013	5	17	2	15	5.1%	2.71 [0.44, 16.68]	
Kwong 2011	11	122	3	122	9.9%	3.93 [1.07, 14.46]	
Total (95% CI)		946		941	100.0%	1.69 [1.12, 2.54]	
Total events	67		40				
Heterogeneity: Tau ^z =	= 0.00; Chi ^z	= 2.24.	df = 4 (P = ().69); ² :	= 0%		_
Test for overall effect				// .			0

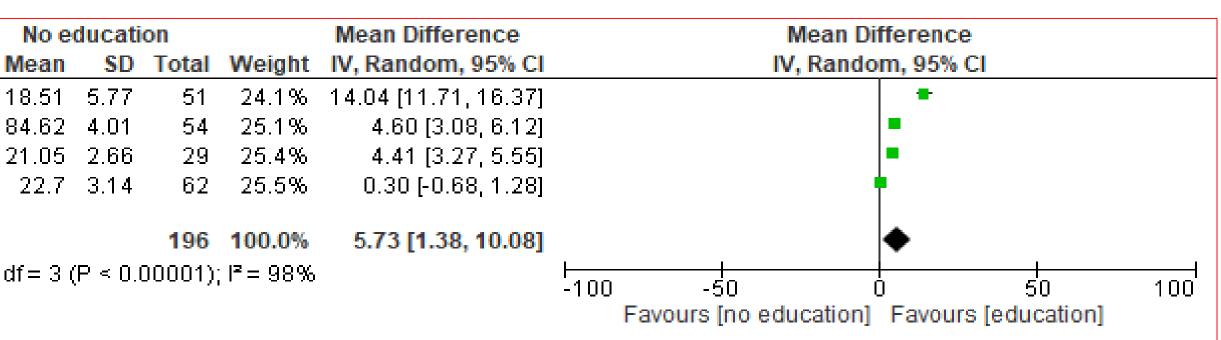
- 2927-44. doi: 10.1111/jocn.15316.
- Setting University of Oxford, National Institute for Health Research, UK.

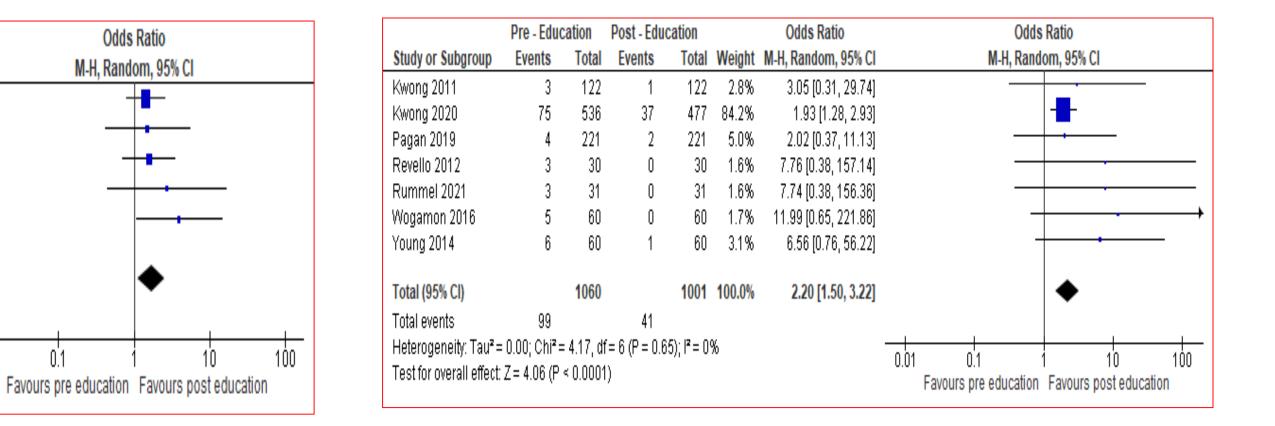


SKIN WOUNDS, and **TRAUMA - SWaT**

Educational Approaches







References

Moda Vitoriano Budri, A., Moore, Z., Patton, D., O'Connor, T., Nugent, L., Mc Cann, A. and Avsar, P. (2020), Impaired mobility and pressure ulcer development in older adults: excess movement and too little movement – two sides of the one coin? Journal of Clinical Nursing, 29(15-16):

2. Kessler, I., Heron, P., Dopson, S., Magee, H., Swain, D & Askham, J. (2010) The Nature and Consequences of Support Workers in a Hospital