

Patient manual handling training. Are we wasting our time?

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Background

Workplace injuries are a serious issue for the health and social care industry, with the sector accounting for 20% of all serious claims reported annually.^a Healthcare organisations seek to minimise risk by investing in patient handling training.^{b,c}

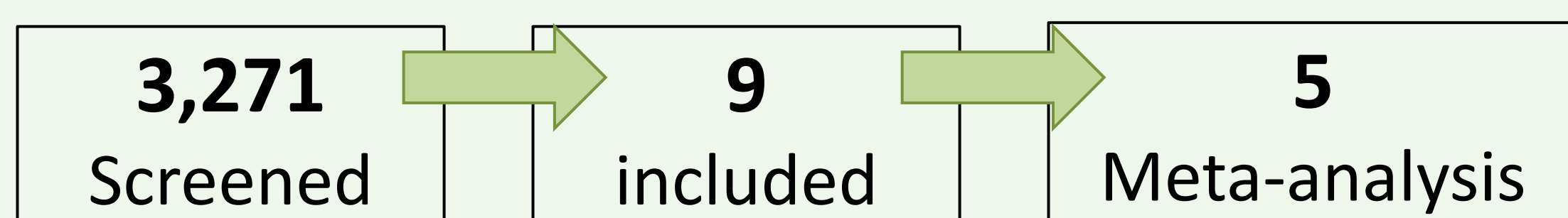
Aim

To systematically review whether patient handling training interventions that included instruction on **patient transfer techniques, inclusive of and beyond correct manual handling equipment use**, were effective in preventing musculoskeletal injuries in healthcare workers.

Method

- ✓ Systematic review performed
 - Controlled trials from January 1996 – August 2022 from 4 established databases
- ✓ Risk of bias evaluated
 - PEDro
- ✓ Overall certainty of evidence assessed
 - GRADE

Results



3,903 Participants:

- Nurses, nursing assistants, home care workers, direct care workers, students
- 84% to 100% female
- 33 to 44 years mean age range

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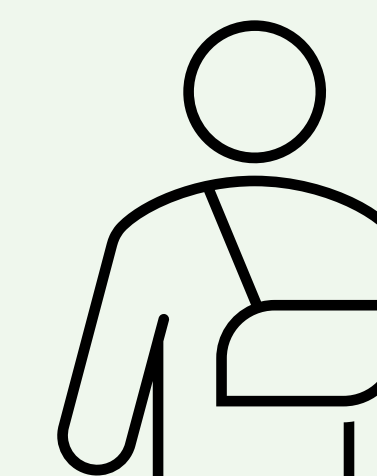
- Hospital, residential aged care, home care, disability, higher education

References

- a. Safe Work Australia (2022) Key Work Health and Safety Statistics, *Australia* 2022
- b. Brusco, N. et al (2023). In Australian hospitals and residential aged care facilities, how do we train nursing and direct care staff to assist patients and residents to move? A national survey. *Australian Health Review*, 47(3), 331-338.
- c. McDermott, H. et al (2012). Investigation of manual handling training practices in organisations and beliefs regarding effectiveness. *International Journal of Industrial Ergonomics*, 42(2), 206-211.

Results (continued)

Does training prevent pain or injury?



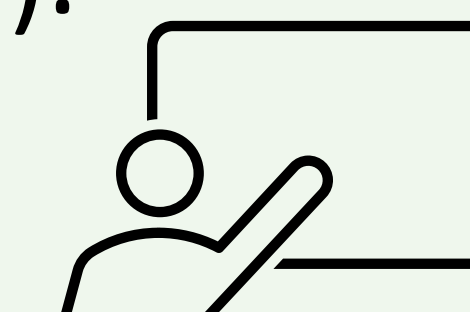
There is low to moderate quality evidence that patient handling training likely does not prevent lower back pain in health professionals without pre-existing pain but may reduce lower back pain in those with pre-existing pain.

No. of Studies	Quality Assessment			Outcome	No. of Participants		Effect (95%CI)	Certainty (GRADE)
	Risk of Bias	Inconsistency	Imprecision		Training	No Training		
Effect of training on 12-month LBP incidence								
2	Not serious	Not serious	Serious	Nordic Questionnaire	432	317	OR = 0.83 (0.59, 1.16)	Moderate
Effect of training on LBP intensity – Pre-existing LBP								
2	Serious	Serious	Not Serious	VAS	130	132	MD = -2.92 (-5.44 -0.41)	Low
Effect of training on LBP intensity – No pre-existing LBP								
2	Serious	Not Serious	Serious	VAS	113	112	MD = -0.06 (-0.63, 0.52)	Low

Abbreviations: GRADE – Grading of Recommendations, Assessment, Development and Evaluations, LBP – lower back pain, VAS – visual analogue scale, MD – mean difference (units out of 10), OR – odds ratio

Training may have a short-term effect on sickness absences (low certainty evidence from a single study).

Does the type of training matter?



There may be a positive effect of training incorporating risk assessment on musculoskeletal injury rates (very low certainty).

The presence of co-interventions (psychological or exercise) and the category of equipment use (low-tech vs. high-tech) did not appear to be associated with the outcome of the training intervention.

Conclusion

- X There is a lack of evidence to support the effectiveness of patient handling training in reducing musculoskeletal injuries and pain when delivered to all healthcare staff.
- ✓ High-quality disinvestment studies, or trials incorporating risk assessment strategies, are warranted.
- ✓ Health service managers should consider evaluating the effectiveness of their current patient handling training practices before continuing to allocate resources.

Want to learn more?

Kugler, H. L., Taylor, N. F., & Brusco, N. K. (2024). Patient handling training interventions and musculoskeletal injuries in healthcare workers: Systematic review and meta-analysis. *Heliyon*, 10(3), e24937

