

Alternatives for physical restraints: results of systematic reviews for an evidence-based guideline

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GEFÖRDERT VOM



Bundesministerium
für Bildung
und Forschung

Background

- Development of an evidence-based practice guideline for the avoidance of physical restraints in nursing homes in 2008 (Köpke et al. 2008; Köpke et al. 2009)
- Guideline includes recommendations based on systematic literature reviews for 24 potentially relevant interventions
- Aim: Reduction of variation in the prevalence of physical restraints between facilities
- Multicomponent intervention was developed based on the guideline

Effect of a Guideline-Based Multicomponent Intervention on Use of Physical Restraints in Nursing Homes

A Randomized Controlled Trial

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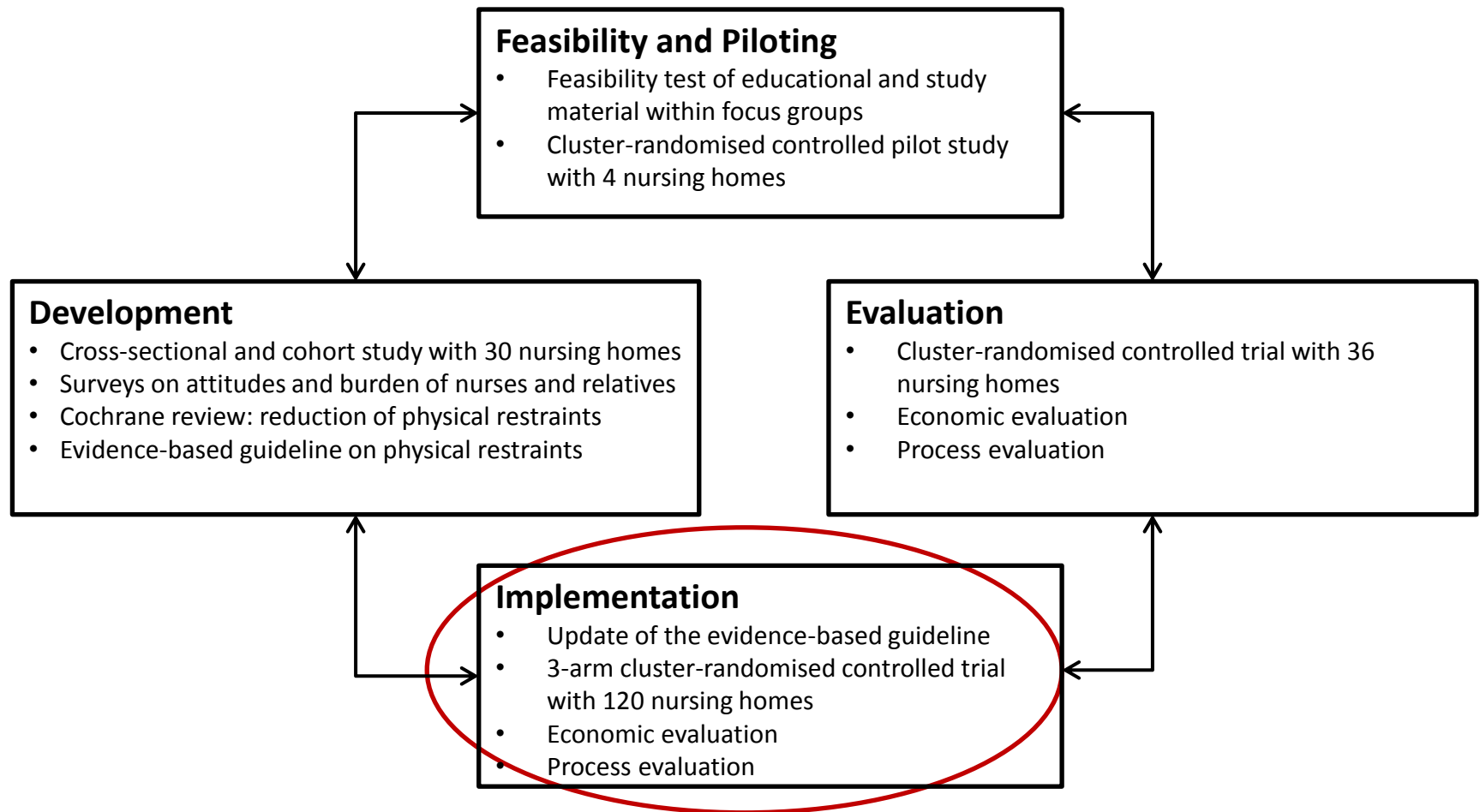
Gabriele Meyer, PhD

Context Despite unambiguous legal regulation and evidence for lack of effectiveness and safety, physical restraints are still frequently administered in nursing homes.

Results All nursing homes completed the study and all residents were included in the analysis. At baseline, 30.6% of control group residents had physical restraints vs 31.5% of intervention group residents. At 6 months, rates were 29.1% vs 22.6%, respectively, a difference of 6.5% (95% CI, 0.6% to 12.4%; cluster-adjusted odds ratio, 0.71; 95% CI, 0.52 to 0.97; $P=.03$). All physical restraint measures were used less frequently in the intervention group. Rates were stable from 3 to 6 months. There were no statistically significant differences in falls, fall-related fractures, and psychotropic medication prescriptions.

JAMA. 2012;307(20):2177-2184

From development to implementation



(according to the MRC-Framework for developing and evaluating complex interventions; Craig et al. 2008)

Implementation study

Abraham et al. BMC Geriatrics (2015) 15:86
DOI 10.1186/s12877-015-0086-0



STUDY PROTOCOL

Open Access



Implementation of a multicomponent intervention to prevent physical restraints in nursing home residents (IMPRINT): study protocol for a cluster-randomised controlled trial

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Table - Components of the study interventions

Components of the interventions	Arms		
	IG 1	IG 2	KG
Educational programme for all nurses	✓	-	-
Training and structured support for nominated key nurses	✓	✓	-
Train-the-trainer module for key nurses	-	✓	-
Printed study material	✓	✓	✓
Supportive material (poster, mugs and pencils)	✓	✓	-

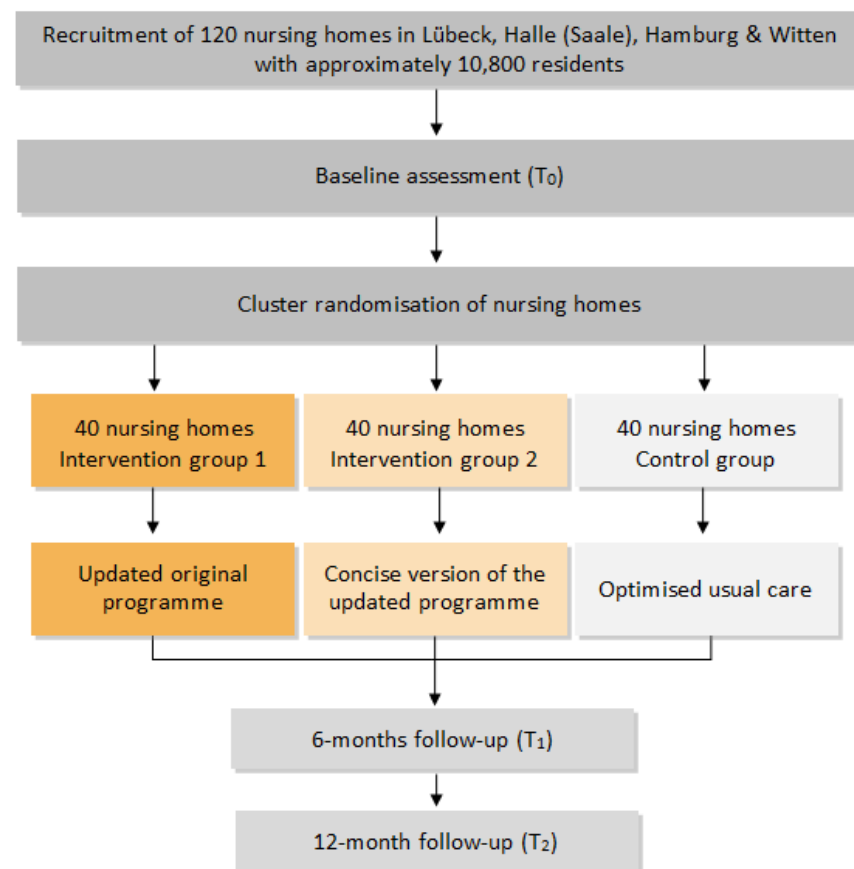


Figure - Flowchart for the cluster-randomised controlled trial

Update of the guideline

- List of initial interventions was revised based on a survey among experts (including residents' representatives)
- Systematic reviews were conducted for 22 interventions
- Quality of evidence was evaluated by using GRADE methodology
- Formal consensus process (5 online meetings) with a multidisciplinary expert group (n=15)
- External peer review (n=3)



Recommendations

Intervention	Recommendation	Quality of Evidence
Multicomponent programmes/ Educational programmes	↑↑ ↑	moderate/ low
Purposeful activities	↑	low
Specific dementia care	↑	low
Musicinterventions (active and passive)	↑	low
Snoezelen	↔	very low
Person-centred care/ Biography-based interventions	↔ ↔	very low
Animal contacts	↔	very low
Advanced nursing qualifications	↔	very low
Cognitive stimulation	↔	low
Environmental modifications	↔	low
Specific housing concepts	↔	very low
Specific offers for nighttime activity	↔	no Evidence
Aromatherapy	↔	low
Physical activities	↔	low
Basal stimulation	↔	no Evidence
Validation	↔	low
Social support	↔	low
Massage/ Specific touch	↔ ↓	very low
Specific bright lighting & Light therapy	↓	moderate

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Social support	↔	low
Massage/ Specific touch	↔ ↓	very low
Specific bright lighting& Light therapy	↓	moderate

Conclusion

- Online consensus meetings are practicable and well accepted
- Little evidence concerning the effectiveness of “alternatives” for physical restraints
- Multicomponent interventions consisting of education and further components seem to be the most promising intervention
- Due to strong evidence for adverse effects, the main recommendation is to avoid physical restraints
- Nurses should avoid restraints by using individually tailored approaches



**Thank you very much
for your attention!**

