Symposium "Quality of care and patient safety"

# High quality nursing home care: The contribution of nursing science

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## Nursing science must have a ...

strong clinical focus and must aim to

- reduce uncertainty and
- avoid fallacies

in nursing practice.

In short: Must inform nursing practice

## Nursing research

- Therapy and prevention: benefit and harms
- Etiology, risk factors
- Disease frequency, symptoms
- Selection and interpretation of diagnostic tests, screening and assessment tests
- Prognosis
- Patients' experiences

# Core topics of long-term care for older people

- The right care at the right time at the right place
- Reduction of over-treatment under-treatment, mishandling

# Amazing ...

• No definition provided by organisations which carry quality in their name (examples of logos were displayed in the presentation version)

- n=10 research fellows and doctoral students
- response: n=10

That's the balancing act between Dienstanweisungsverfahrensrichtlinienexpertenstandards and what is good for the care recipient

A., 45 years, doctoral student and quality manager

Careful consideration of the individual needs of a care dependent person and always taking best evidence into account. Social competence and a supportive working environment lead to effective and beneficial nursing care.

A., 44 years, post doc

Is not recognised by the care dependent person and his/her family. The absence of good nursing care, however, is perceived due to physical, psychological and social consequences.

S., 42 years, post doc

Is difficult to measure.

C., 29 years, doctoral student





## **JAMDA**

journal homepage: www.jamda.com



#### **Original Study**

Quality of Life of and Quality of Care for People With Dementia Receiving Long Term Institutional Care or Professional Home Care: The European RightTimePlaceCare Study

Hanneke C. Beerens MSc, RN<sup>a,\*</sup>, Caroline Sutcliffe MSc<sup>b</sup>, Anna Renom-Guiteras<sup>c</sup>, Maria E. Soto MD, PhD<sup>d</sup>, Riitta Suhonen PhD, RN<sup>e</sup>, Adela Zabalegui MD, PhD<sup>f</sup>, Christina Bökberg MSc, RN<sup>g</sup>, Kai Saks MD, PhD<sup>h</sup>, Jan P.H. Hamers PhD, RN<sup>a</sup> on behalf of the RightTimePlaceCare Consortium<sup>1</sup>

# Quality of care: nursing home (example)

Many pressure ulcers

Estonia: 14%(EU mean: 7%)

Many physical restraints:

Spain: 83%

Estonia: 48%

Finland: 40%

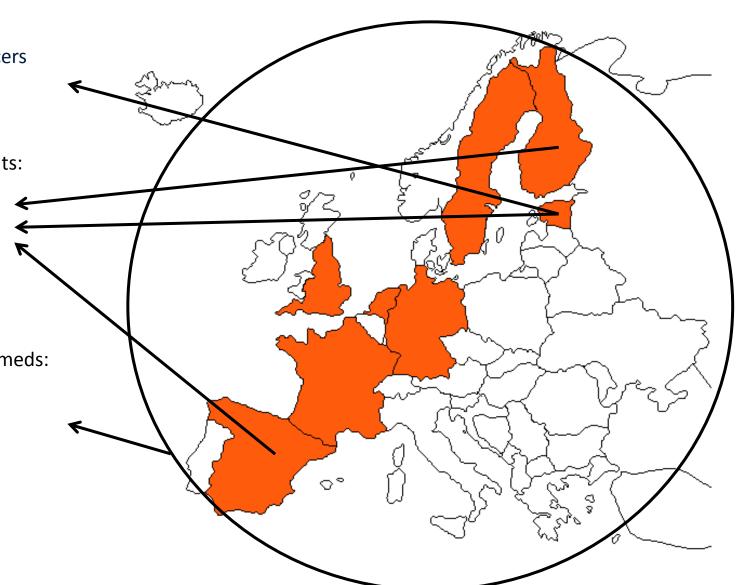
(EU mean: 32%)

Many psychotropic meds:

- EU mean: 70%

- France: 90%

- Spain: 81%



We were aware of physical restraints in nursing homes through own earlier studies on prevention of falls and fall-related injuries.

## **Papers**

BMJ VOLUME 326 11 JANUARY 2003

Effect on hip fractures of increased use of hip protectors in nursing homes: cluster randomised controlled trial

Gabriele Meyer, Andrea Warnke, R Bender, I Mühlhauser

Age and Ageing 2009; **38:** 417–423 doi: 10.1093/ageing/afp049 Published electronically 12 May 2009 © The Author 2009. Published by Oxford University Press on behalf of the British Geriatrics Society.

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# Comparison of a fall risk assessment tool with nurses' judgement alone: a cluster-randomised controlled trial

Gabriele Meyer<sup>1,2</sup>, Sascha Köpke<sup>1</sup>, Burkhard Haastert<sup>3</sup>, Ingrid Mühlhauser<sup>1</sup>

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#### ORIGINAL ARTICLE

# Restraint use among nursing home residents: <u>cross-sectional</u> study and prospective cohort study

Gabriele Meyer, Sascha Köpke, Burkhard Haastert and Ingrid Mühlhauser

Aims and objectives. To investigate (1) the prevalence of physical restraints and psychoactive medication, (2) newly administered physical restraints, frequency of application of the devices and frequency of psychoactive medication on demand during 12-month follow-up and (3) characteristics associated with restraint use in nursing homes.

Background. High quality data on restraint use in German nursing homes are lacking so far. Such information is the basis for interventions to achieve a restraint-free care.

Design. Cross-sectional study and prospective cohort study.

Setting and subjects. Thirty nursing homes with 2367 residents in Hamburg, Germany.

Methods. External investigators obtained prevalence of physical restraints by direct observation on three occasions on one day, psychoactive drugs were extracted from residents' records and prospective data were documented by nurses.

Results. Residents' mean age was 86 years, 81% were female. Prevalence of residents with at least one physical restraint was 26·2% [95% confidence interval (CI) 21·3–31·1]. Centre prevalence ranged from 4·4 to 58·9%. Bedrails were most often used (in 24·5% of residents), fixed tables, belts and other restraints were rare. Prevalence of residents with at least one psychoactive drug was 52·4% (95% CI 48·7–56·1). The proportion of residents with at least one physical restraint after the first observation week of 26·3% (21·3–31·3) cumulated to 39·5% (33·3–45·7) at the end of follow-up (10·4 SD 3·3 months). The relative frequency of observation days with at least one device ranged from 4·9–64·8% between centres. No characteristic was found to explain centre differences.

Conclusions. The frequency of physical restraints and psychoactive drugs in German nursing homes is substantial. Pronounced centre variation suggests that standard care is possible without restraints.

Relevance to clinical practice. Effective restraint minimisation approaches are urgently warranted. An evidence-based guideline may overcome centre differences towards a restraint-free nursing home care.

Key words: epidemiology, nurses, nursing, nursing homes, older people, restraint

# Cross-sectional and 12 month data on physical restraints (Meyer et al. 2009)

Resident ≥ 1 PR

Resident with ...

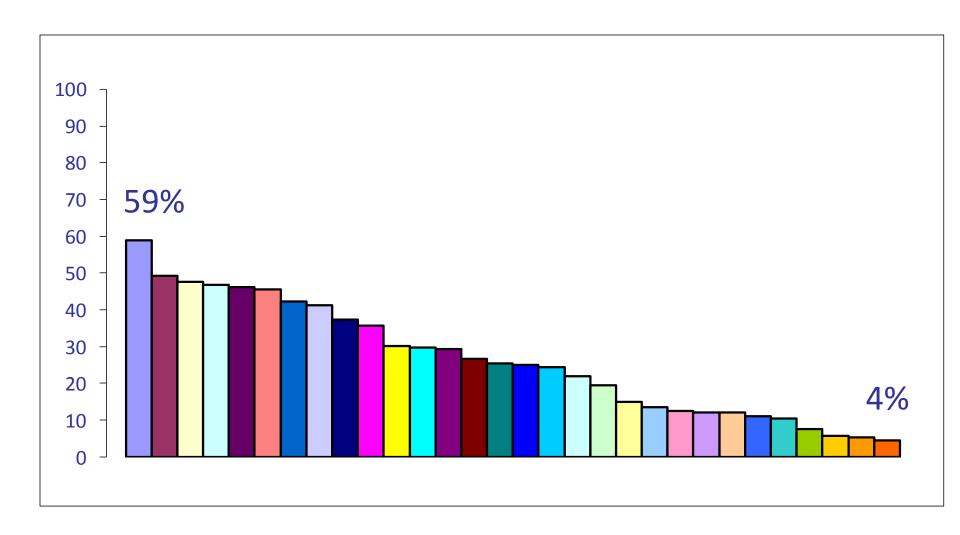
bedrail

belt

table at chair

Cross- sectional	After 12 months
26.2	39.8
24.5	38.5
2.7	8.9
2.1	9.9

# Cross-sectional data on physical restraints (Meyer et al. 2009)



# Variation between nursing care centers

 Indicator for routines which are not driven by professional reasons, but related to tradition and conviction

# Deeper investigation of the topic

- Surveys on attitudes and burden of nurses and relatives (Hamers et al. Int J Nurs Stud 2009; Haut et al. J Nurs Scholarsh 2010)
- Systematic literature reviews (attitudes, efficacy of reduction programmes, existing guidelines) (Möhler et al. Cochrane Database Syst Rev 2011; Möhler & Meyer Int J Nurs Stud 2014; Möhler & Meyer BMC Geriatr 2015)
- Development of an evidence-based guideline on physical restraints (www.leitlinie-fem.de)

# Starting point for intervention development

- Discrepancy between nursing practice and best scientific knowledge (and nursing ethics)
- Routine application of measures with high potential of harm and questionnable benefit
- Nursing home residents have the right to receive gold standard care (evidence-informed and ethically justified care)



# Developing and evaluating complex interventions:

new guidance

### **Box 1.** What makes an intervention complex?

- Number of interacting components within the experimental and control interventions.
- Number and difficulty of behaviours required by those delivering or receiving the intervention.
- Number of groups or organisational levels targeted by the intervention.
- Number and variability of outcomes.
- Degree of flexibility or tailoring of the intervention permitted.

(Craig et al. 2012; IJNS)

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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

Jens Abraham<sup>1</sup>, Ralph Möhler<sup>1,2</sup>, Adrienne Henkel<sup>3</sup>, Ramona Kupfer<sup>3,4</sup>, Andrea Icks<sup>5</sup>, Charalabos-Markos Dintsios<sup>5</sup>, Burkhard Haastert<sup>6</sup>, Gabriele Meyer<sup>1\*</sup> and Sascha Köpke<sup>3</sup>

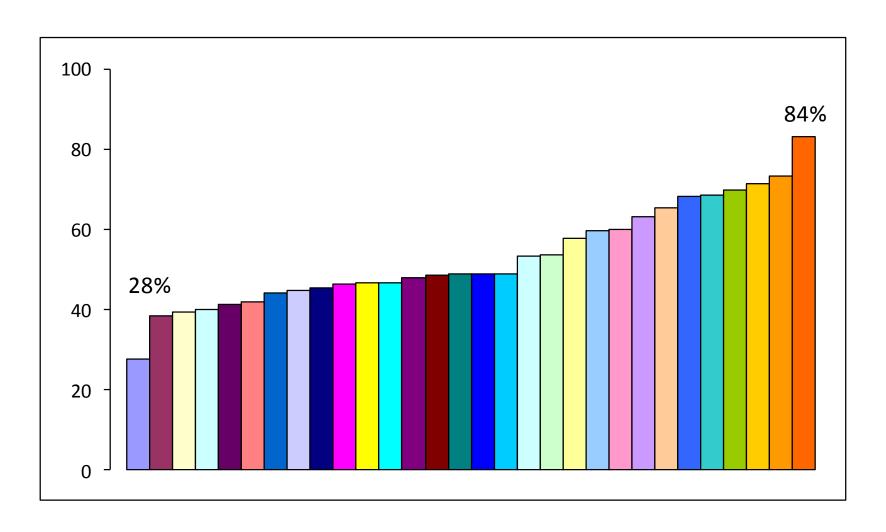
# Variation between nursing care centers

 Indicator for routines which are not driven by professional reasons, but related to tradition and conviction



# Cross-sectional data on psychotropic medication

(Meyer et al. 2009)





Richter et al. Implementation Science (2015) 10:82 DOI 10.1186/s13012-015-0268-3



#### STUDY PROTOCOL

**Open Access** 

drug use in nursing homes (EPCentCare): study protocol for a cluster-randomised controlled trial

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Effekt personenzentrierter Pflege und Versorgung auf die Verschreibungshäufigkeit von Antipsychotika in Pflegeheimen



## Joint contractures in nursing home residents

- Epidemiological studies: prevalence ranges between 20% and 80%
- In Germany, joint contracture risk assessment and prevention as quality indicator of nursing home care
- Nurses obliged to conduct risk assessment and to offer preventive and therapeutic treatments
- Joint contractures usually assessed by measuring the range of motion and other functional measures
- Sound assessments measuring aspects relevant to nursing care lacking (impact on functioning, quality of life, and social participation)
- No proven nursing interventions for prevention and treatment of joint contractures

(Gnass et al. Z Gerontol Geriatr 2010)

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**OPEN ACCESS** 

Research Article

Developing and piloting a multifactorial intervention to address participation and quality of life in nursing home residents with joint contractures (JointConImprove): study protocol

GMS German Medical Science 2015. Vol. 13. ISSN 1612-3174

Entwicklung und Pilotierung einer multifaktoriellen Intervention zur Verbesserung von sozialer Teilhabe und Lebensqualität von Pflegeheimbewohnern mit Gelenkkontrakturen: Studienprotokoll

## **Conclusions**

- Nursing science has the mandate to conduct clinical studies with high potential for improvement of the sitituation of care recipients.
- Practice variation without rationale must be reduced towards general improvement/upgrading of standard care.
- Innovations for nursing practice must be developed in a systematic way, i.e. need careful development, evaluation and implementation (if of proven benefit)

