Restraint use in older adults in home care: a systematic review

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CONFLICT OF INTEREST DISCLOSURE

I have no potential conflict of interest to report

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Restraint use in older adults in home care: a systematic review

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Background

- Growing number of frail older persons living at home

  ↑ risk for restraint use

- More healthcare workers confronted with increased demand for restraint use in home care

- Restraints have many negative consequences for the patient (physical; psychological; social)

Background

- Considerable body of research in residential setting

↕

Research on restraint use in home care = scarce

- Most derived insights of residential setting cannot simply be translated to the specific context of home care
  - e.g. role of family, differences in organization of care

AIMS / RESEARCH QUESTIONS

- How is restraint use defined in research about restraint use in older adults receiving home care?
- How prevalent is restraint use in older adults receiving home care?
- What are the reasons given for restraining older adults receiving home care and who is involved in the decision-making process?

Method

- Design: Systematic review, registered in PROSPERO (CRD42016036745)
- Data sources
  - Four databases: Pubmed, CINAHL, Embase, Cochrane Library
    - from inception to end of April 2017

Method

- Inclusion criteria:
  1. Empirical research on restraint use (any design)
  2. Subjects included = older adults receiving home care
  3. Studies reporting a definition of restraint use
  4. data on prevalence, types of restraints, reasons for use or people involved
  5. Written in English, French, Dutch or German.

Method

- Exclusion criteria:
  - Studies in daycare centers and service flats
  - studies restricted to use of chemical restraint
  - systematic reviews/meta-analyses

Results – study characteristics

- 8 studies
  - 1 qualitative
  - 7 quantitative (6 cross-sectional studies and 1 prospective study)

- Published between 2002 – 2017

- Conducted in:
  - the Netherlands (n= 3) (de Veer et al., 2009, Hamers et al., 2016, Bakker et al., 2002)
  - Belgium (n= 2) (Scheepmans et al., 2014, 2017)
  - Japan (n= 1) (Kurata, 2014)
  - USA (n=1) (Kunik, 2010)
  - European multi-country study, including eight countries (i.e. England, Estonia, Finland, France, Germany, the Netherlands, Spain, Sweden) (Beerens et al., 2014)

Results – study characteristics

- Respondents:
  - professional care providers:
    - Home nurses (de Veer et al., 2009, Scheepmans et al., 2014, 2017)
    - Dementia case managers (Hamers et al., 2016)
    - Professionals involved in direct patient care (Bakker et al., 2002)
  - dyads with
    - Patients and informal caregivers (Beerens, et al., 2016, Kunik et al., 2010)
    - Informal caregivers and home care providers (i.e. home helper, visiting nurse, visiting physician, care manager) (Kurata, 2014)

- Study quality:
  - Evaluated by Mixed Methods Appraisal Tool (MMAT) (Pluye et al., 2009)
  - Moderate to high

Results - Definition

- 2 concepts
  - “physical” restraints
  - “restraints”

- Only 3 studies gave a clear definition (de Veer et al., 2009; Scheepmans et al., 2014, 2017)

Results - Definition

- *"measures used by nursing staff to keep a patient away from a (potentially) dangerous situation"*

de Veer et al. (2009)

- *"any devices and all actions that healthcare workers or informal caregivers performed that restricted the individual's freedom in some way"*

Scheepmans et al. (2014, 2017)

Results - Prevalence

- Range from about 5% (Kunik et al., 2010), to 7% (Hamers et al., 2016), 9.9% (Beerens et al., 2016) and 24.7% (Scheepmans et al., 2017)

- 40.5% of the home care providers observed that physical restraints were used in older patients' homes (Kurata and Ojima, 2014)

- 80% of nursing staff said they had physically restrained a person at some point (de Veer et al., 2009)

Results - Type of restraints

- Various types of restraints are used in home care
- Range from 6 (de Veer et al., 2009), to 10 (Hamers et al., 2016), 12 (Bakker et al., 2002), 17 (Kurata and Ojima, 2014), 24 (Scheepmans et al., 2017)
- Examples:
  - Bed against the wall
  - Adaptation of house
  - Bedrails
  - Titled chair or geriatric chair
  - Brakes on wheelchair
  - Locking house/ room
  - Electronic supervision
  - Removal of aids
  - Restraints during ADL activities
  - Belts / ties
  - Gloves
  - Appropriate clothing
  - Over-chair table
  - Forced or camouflaged administration of medication
  - Chair against table
  - Seclusion
  - Restraint vest
  - Nursing blanket
  - Sleeping bag

Results - Persons involved

- Important role of the family or informal caregivers
  - Request or initiate use of restraints

    (de Veer et al., 2009; Scheepmans et al., 2017; Bakker et al., 2002; Hamers et al., 2016)
  - Involved in decision-making process and application of restraints

    (de Veer et al., 2009; Scheepmans et al., 2017; Bakker et al., 2002)

- Second most important are the nurses
  - Initiate restraint use (Scheepmans et al., 2017; Bakker et al., 2002)
  - Are involved in the decision

    (de Veer et al., 2009; Scheepmans et al., 2017; Bakker et al., 2002)
  - Advice (Kurata and Ojima, 2014)

Results - Persons involved

- General practitioner is less involved in:
  - Decision (de Veer et al., 2009; Scheepmans et al., 2017)
  - Application

    (Scheepmans et al., 2017; Bakker et al., 2002; Kurata and Ojima, 2014)
  - Request to restraint use (Scheepmans et al., 2017)

- Patient - one study (Scheepmans et al., 2017)
  - Initiate / request for restraint use (24,9%)
  - Involved in decision-making (42,9%)

Results - Reasons

- Patient safety: most commonly reported reason (de Veer et al., 2009, Bakker et al., 2002, Scheepmans et al., 2014, 2017, Kurata & Ojima, 2014)

- Behaviour-related
  - to prevent an older person from taking things from others or from removing a dressing (Kurata and Ojima, 2014)
  - to protect the environment from damage or disruption by a patient (Scheepmans et al., 2017; Kurata and Ojima, 2014)

- Lack of staff (Kurata and Ojima, 2014)

Results - Reasons

- Specific reasons mentioned in the qualitative study (Scheepmans et al., 2014) and confirmed in a survey (Scheepmans et al., 2017):

  - desire to delay admission to a nursing home
  - respite for the informal caregiver

Conclusions

- First systematic review on use of restraints in older adults receiving home care

- Research about restraint use in home care is scarce
  - Mix of only eight, recently published studies
  - But provides clear evidence about its use in this setting
  - More research is urgently needed

Conclusions

- Restraint use in home care is characterized by its specific setting
  - Specific reasons other than safety for using restraints; e.g.
    - delay to nursing home admission
    - to provide respite for an informal caregiver
  - Family plays a central role in the decision-making process
  - General practitioner seems to be less involved

Conclusions

- There is no clear definition of restraint use in home care
  - Lack of consensus on how to operationalize the concept

- In recognition of this problem, an international panel of experts/researchers recently reached consensus about a research definition
  - *"Physical restraint is defined as any action or procedure that prevents a person's free body movement to a position of choice and/or normal access to his/her body by the use of any method, attached or adjacent to a person's body that he/she cannot control or remove easily."*

(Bleijlevens et al., 2016)

Thank you!

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