Associated Risk Factors of Restraint Use in Older Adults with Home Care: a cross-sectional study

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CONFLICT OF INTEREST DISCLOSURE

I have no potential conflict of interest to report
Associated Risk Factors of Restraint Use in Older Adults with Home Care: a cross-sectional study

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Background

- Restraint use is common in home care
  - Prevalence ranging from 7% to 24.7%
    (de Veer et al., 2009, Beerens et al., 2016, Hamers et al., 2016,

- 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
Background

- Research on factors associated with restraint use in home care is scarce

- Specificity of home care setting requires more insights in the associated factors of restraint use in home care
AIM

- To gain insight into the factors associated with restraints on older adults receiving home care
Methods

- Design: Cross-sectional survey

- Setting and sample
  - 8000 subjects randomly selected from a total of 45,700 older adults (60 years or older), receiving home care from a nursing organization in Belgium
  - Data from 6397 subjects could be used for further analysis

EUGMS 2017
Methods

- Measurements
  - For each patient, the primary nurse completed a validated questionnaire collecting information about
    - patient related factors
    - non-patient related factors
    - restraint use (primary outcome)
  
- Observations during the “past four weeks”
Methods

- Patient related factors (such as):
  - Age
  - Gender
  - ADL dependency
  - History of falls
  - Nurses’ perceived risk of falling
  - Cognitive decline
  - Polypharmacy
  - Behavioral problems
  - ...

EUGMS 2017
Methods

- Non-patient related factors (such as):
  - Presence of supervision
  - Presence of informal caregiver
  - Informal caregiver’s well-being and perceived support
  - ...
Methods

- Restraint use (absent or present):

  “Any actions performed by healthcare workers and/or relatives that restricted the patient’s freedom to some extent”

(Scheepmans et al., 2014, 2017)
Methods

- Analysis
  - Binary logistic regression model with generalized estimating equations
  - Missing data: multivariate imputation using the fully conditional specification approach
Results

- Sample characteristics (n = 6397)
  - 66.8% female
  - mean age of 80.6 years (SD= ± 7.8)
  - 29.5% with cognitive decline (Cognitive Performance Scale)
  - 30.3% with a fall history in previous six months
  - 58.4% “perceived” by nurses as at risk of falling
  - completely dependent for bathing (42.4%) or dressing (40.1%)
  - 6.4% with behavioral problems
Results

- Sample characteristics
  - 46.4% lived alone
  - 76.3% were supervised
  - 70.0% had an informal caregiver
    - 17.7% expressed feelings of sadness, anger or depression
Results

- **Prevalence of restraint use**
  - 24.7% (CI = 95%; 23.6-25.7%)

- **Most common types of restraints**
  - Bed against the wall (39.0%)
  - Adaptation of the house (25.8%)
  - Bedrails (24.1%)

- **The least common types of restraints**
  - Locking the room (2.4%)
  - Restraint vest (0.8%)
  - Nursing blanket (0.2%)
  - Ankle and wrist ties (0.7%)
  - Sleeping bag (0.7%)
Results (multivariate model)

- Associated factors: patient related
  - ADL-activities
    - eating (OR= 2.181, 95% CI= 1.212 – 3.925)
    - transfer (OR= 2.131, 95% CI= 1.191 – 3.812)
    - continence (OR= 1.436, 95% CI= 0.925 – 2.231)
  - Nurses’ clinical judgement of risk of falling
    (OR= 1.994, 95% CI= 1.710 – 2.324)
  - Behavioral problems (OR= 1.446, 95% CI= 1.048 – 1.995)
  - Cognitive impairment (OR= 1.398, 95% CI= 1.290 – 1.515)
  - Polypharmacy (OR= 1.415, 95% CI= 1.219 – 1.641)
Results (multivariate model)

- Associated factors: non-patient related
  - Supervision (OR= 2.433, 95% CI= 1.948  3.038)
  - Informal caregiver’s well-being such as feelings of sadness, anger, depression
    (OR= 1.472, 95% CI= 1.126  1.925)
  - Informal caregiver’s dissatisfaction with family support
    (OR= 1.339, 95% CI= 1.003  1.788)
Conclusions

- Both patient and non-patient factors are associated with restraint use

- Patient-related
  - characteristics of “frail older adults” (e.g. cognitive decline, poor mobility)
  - factors comparable to associated factors found in nursing homes

- Nurses’ clinical judgement of risk of falling !!
  - worrisome, given that restraint use is not a good way of preventing falls
Conclusions

- Non-patient related factors such as well-being of the informal caregiver and dissatisfaction with family support
  - Specific factors only found in home care setting
  - Indicates high burden placed on informal caregivers
  - Necessity to develop interventions to support informal caregivers; and as a consequence to reduce restraints in home care
Thank you!