A Model for Falls with Major Injury in Nursing Home Residents

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The purpose of this study is to identify risk factors for falls with major injury and to develop a model to predict falls with major injury among elderly nursing home (NH) residents.

RESEARCH QUESTIONS

Q1) What are the intrinsic factors and extrinsic factors that contribute to falls with major injury?
Q2) Do factors interact? If so, how do the factors interact?
Q3) Which factors, or interactions of these factors, are most useful for predicting who will have falls with major injury among NH residents?

LITERATURE REVIEW

What We Know | What We Do Not Know
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Inconsistencies in defining falls with major injury | Risk factors for predicting falls with major injury
Some conflicting findings on risk factors for falls with major injury | Interactions of competence and environmental press
Inconsistencies in determining risk factors for falls with major injury | Interactions of competence and environmental press

Based on Lawton’s Ecological Model of Aging (EMA)

STUDY MODEL

PREDICTORS

Competence (intrinsic factor)
Environmental Press (extrinsic factor)
Interaction of competence and environmental press
Interaction of factors

OUTCOME: Falls with Major Injury
A: Falls with major injury
B: Falls without major injury

DATA DESCRIPTIONS

- MDS 3.0 data from January 1, 2014 to December 31, 2014
- Federally mandated comprehensive assessment tool used in Medicare and Medicaid certified NHs (CMS, 2013)
- Established reliability and validity (Smedley & White, 2002)
- Approximately 1.4 million beneficiaries
- 653 variables per beneficiary
- About 42.5 gigabytes

FUNDING SOURCE: Gerontological Advanced Practice Nurses Association (GAPNA) Center for Nursing Advancement: UnitedHealth Group Grant