

## FACTORS ASSOCIATED WITH FALLS DURING HOSPITALIZATION IN AN OLDER ADULT POPULATION

Marita G. Tittler, PhD, RN, FAAN

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**Background:** Falls of hospitalized older adults are of concern for patients, family members, third-party payers, and caregivers. Falls are the most common safety incident among hospitalized patients with fall rates from 2.9–13 per 1,000 patient days. Little effectiveness research has been conducted on nursing interventions and other variables associated with falls of older adults during hospitalization.

**Purpose:** The purpose of this exploratory outcomes effectiveness study was to examine variables associated with falls during hospitalization of older adults.

**Method:** An effectiveness research model composed of patient characteristics, clinical conditions, nursing unit characteristics, medical, pharmacy, and nursing interventions was tested using generalized estimating equations (GEE) analysis. The sample consisted of 10,187 hospitalizations of 7,851 patients, aged 60 or older, admitted for acute care services over a 4-year period. Those included in the sample either had received the Nursing Interventions Classification (NIC) intervention of Fall Prevention (defined as “instituting special precautions with patient at risk for injury from falling” [Dochterman & Bulechek, 2004, p. 363]) or were at risk for falling as defined by a fall risk assessment scale. Data were obtained retrospectively from 9 clinical and administrative data repositories from 1 tertiary care hospital.

**Discussion:** Variables that were positively associated with falls, after controlling for other variables in the model, included several medical and nursing treatments; several types of medications including antidepressants, benzodiazepines, antipsychotic, and psychotropic agents; and several types of nursing treatments including restraints and neurologic monitoring (at low use rates of < 2 times a day). Variables inversely associated with falls included registered nurse (RN) skill mix, pressure ulcer care, pain management, and tube care.

**Conclusion:** The study demonstrates the importance of conducting interdisciplinary effectiveness research that includes nursing care. Most of the variables associated with falls were interventions (medical, pharmacy, and nursing). Dose of nursing treatments and RN skill mix were also associated with falls.