OBJECTIVES
The objective of this study was to evaluate the effectiveness of a multifactorial fall- and injury-prevention program in older people with higher and lower levels of cognition.

Fall and Injury Prevention in Residential Care: Effects in Residents With Higher and Lower Levels of Cognition

Jensen, J., Nyberg, L., Gustafson, Y., Lundin-Olsson, L.
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Key Concepts/Context
The prevention of falls and injuries in older people with cognitive impairment is an important concern in public health. It is of vital interest to investigate whether older people with significant cognitive impairment would benefit from fall prevention strategies.

Methods
A preplanned subgroup comparison of the effectiveness of a cluster-randomized, nonblinded, usual-care, controlled trial was conducted to analyze a multifactorial fall-prevention program in relation to the number of falls, time to first fall, and number of injuries among all consenting residents living in the facilities, aged 65 and older who were divided into lower and higher levels of cognition.

Findings
The subgroup comparison revealed a beneficial effect regarding falls in the higher-cognition group. In the lower-cognition group, no beneficial effect on falls was seen, but femoral fractures were reduced.

Limitations
Individual randomization was considered inappropriate, because the interventions focused on residents, staff, and environment in each facility and because some staff members were responsible for several facilities and consequently had to be part of the same study group. Some residents may have risen independently after a fall without being observed, resulting in non-reporting of the event. In addition, the
intervention status of the facilities was non-blinded, which could pose a risk of reporting bias. The size of the subgroups is a further limitation.

**Design Implications**

The environmental modifications and walking aids used in this study should be used to mitigate risk of falls for older adults who do not have a reduced level of cognition due to dementia.