

M. WETTSTEIN, H-W. WAHL, N. SHOVAL, F. OSWALD. **Cognitive resource loss and out-of-home behavior.** *Gerontechnology* 2012;11(2):349; doi:10.4017/gt.2012.11.02.298.00 **Purpose** Out-of-home behavior in old age plays a fundamental role in health, autonomy, as well as social participation. However, the question if and how out-of-home behavior is affected by cognitive resource loss has rarely been addressed by research. Moreover, there is a lack of multidimensional and objective assessments of out-of-home behavior<sup>1,2</sup>. In our conceptual framework, we distinguish between a mobility component and an activity component of out-of-home behavior which are further separated into subdomains. We compared dimensions of out-of-home behavior of older adults with cognitive impairment to that of cognitively healthy older adults. **Method** The study participants were German and Israeli community-dwelling elders with cognitive impairment (MCI and mild dementia, n=111) as well as cognitively healthy older adults (n=146) with a mean age of 72.9 years. The mobility component of out-of-home behavior was assessed with advanced GPS-tracking technology, collected over a 4-week period per individual. For the assessment of the activity component of out-of-home-behavior, self-report data were used. **Results & Discussion** No significant group differences were found for walking-based indicators of out-of-home mobility. Regarding measures of general mobility (time spent out of the home, number of visited places) as well as activity engagement, individuals with mild dementia exhibited significantly reduced mobility and activity levels compared to the cognitively healthy group and the individuals with MCI. The MCI-group was similar to the cognitively healthy group regarding most mobility domains but reported significantly less activity engagement. When predicting cognitive impairment based on indicators of out-of-home behavior using logistic regression analyses, only the effects of activity engagement were consistently significant. These findings imply that cognitive impairment is differentially related to measures of out-of-home behavior, with some mobility domains (like walking) still remaining intact but reduced engagement in out-of-home activity compared to cognitively healthy individuals.

## References

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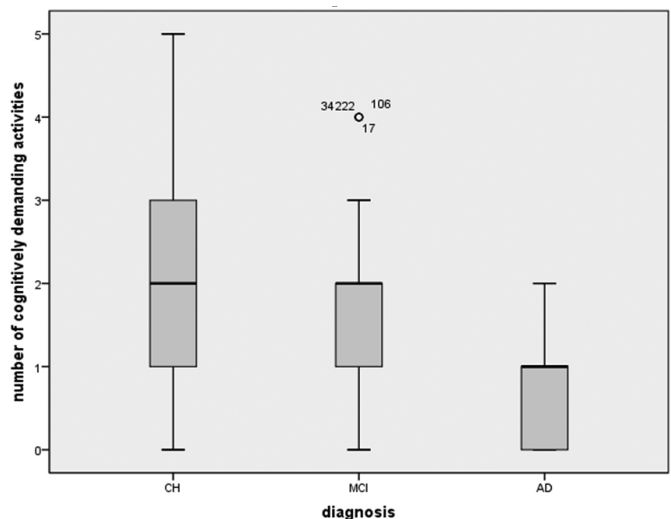


Figure 1. Number of exerted cognitively demanding activities for cognitively healthy adults (CH), persons with mild cognitive impairment (MCI) and with dementia (AD)