Individuals with sensory and cognitive impairments face additional challenges compared to those with cognitive difficulties alone: Analysis of interRAI data from home care and long-term care

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# Navigation links

[Producer notes](#_Toc512350044)

[Special symbols](#_Toc512350045)

[Navigation links](#_Toc512350046)

[Individuals with sensory and cognitive impairments face additional challenges compared to those with cognitive difficulties alone: Analysis of interRAI data from home care and long-term care](#_Toc512350047)

[Introduction](#_Toc512350048)

[Methods](#_Toc512350049)

[Results](#_Toc512350050)

[Table 1: Characteristics of home care clients with CI only and CI + DSI](#_Toc512350051)

[Table 2: Characteristics of long-term care residents with CI only and CI + DSI](#_Toc512350052)

[Discussion](#_Toc512350053)

[References](#_Toc512350054)

# Individuals with sensory and cognitive impairments face additional challenges compared to those with cognitive difficulties alone: Analysis of interRAI data from home care and long-term care

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## Introduction

Sensory losses and cognitive impairments are highly prevalent in older adults (65+) and are associated with difficulties in communication, mood and functional ability{n1}

The main object of the study was to understand the relationships between sensory and cognitive impairments

## Methods

* Secondary analysis was completed on:
  + A sample of Ontario home care clients (n = 291,824) using the Resident Assessment Instrument for Home Care (RAI-HC)
  + A sample of long-term care (LTC) residents (n = 110,578) using the Minimum Data Set 2.0 (MDS 2.0)
* For individuals with multiple assessments, the most recent assessment completed between 2009-2014 was chosen for analysis
* In each sample, individuals were separated into eight mutually exclusive  
  sub-groups;
  + No impairments
  + Hearing impairment (HI)
  + Vision impairment (VI)
  + Dual sensory impairment (DSI)
  + Cognitive impairment (CI) only
  + Combination of sensory and cognitive impairment
    - CI + VI
    - CI + HI
    - CI + DSI

## Results

### Table 1: Characteristics of home care clients with CI only and CI + DSI

#### Home care

|  | **CI only (n = 54,029)** | **DSI+CI (n = 49,452)** |
| --- | --- | --- |
| Aged 85 + | 34.1% | 64.7% |
| Female | 66.0% | 62.2% |
| Widowed/separated/divorced | 52.9% | 63.2% |
| Self reported loneliness | 13.0% | 17.0% |
| ADL impairment | 42.7% | 57.5% |
| IADL impairment | 71.3% | 82.0% |
| Moderate/severe difficulty understanding others | 25.1% | 38.0% |

### Table 2: Characteristics of long-term care residents with CI only and CI + DSI

#### Long-term care

|  | **CI only (n = 31,142)** | **DSI+CI (n = 30,349)** |
| --- | --- | --- |
| Age 85+ | 53.4% | 75.8% |
| Female | 70.3% | 71.8% |
| Widowed/separated/divorced | 63.3% | 70.3% |
| Purses involvement in life of facility | 22.9% | 14.0% |
| At ease interacting with others | 56.4% | 44.3% |
| ADL impairment | 93.1% | 97.1% |
| Moderate/severe difficulty understanding others | 27.7% | 49.2% |

**Figure 1: A comparison of clients in home care and long-term care with all three impairments (CI + DSI)**

{Chart not described}

## Discussion

* Compared to all other sub-groups, clients with all three impairments (CI + DSI) were more likely to report loneliness, have reduced social engagements and greater functional impairment
* Older adults with CI + DSI were more likely to have impairments in functional dependence, skills for daily decision-making and communication, compared to individuals with CI alone
* Sensory and cognitive impairments are highly prevalent in both home care and long-term care settings and are potentially modifiable making them an important target for interventions to reduce negative health outcomes

## References

{n1} Pinto JM, Kern DW, Wroblewski KE, Chen RC, Schimm LP, et al., (2014) Sensory function: insights from Wave 2 of the National Social Life, Health and Aging Project. J Gerontol B Psychol Sci Soc Sci 69 Suppl 2: S144-153.

{Box}

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