

Prevalence and Consequences of Depression and Vision Impairment among Older Residents Newly Admitted to Nursing Homes

Background and Significance

Older adults who enter nursing homes for either long-term or subacute care typically have multiple co-morbidities that influence the course and outcomes of care. Two common co-morbidities that are often under-diagnosed and under-treated are vision impairment and depression.

Depression: There is a substantial body of research that suggests that depression acts as a barrier to engagement in rehabilitation programs and leads to poorer rehabilitation outcomes in both short and long-term follow-ups. Furthermore, depression is associated with poorer quality of life, higher disability, increased likelihood of falls, poorer medical status, and higher utilization of health care services. Although clinical experience has suggested that there are high rates of depression among residents at Jewish Home Lifecare, there has not been any systematic assessment of the prevalence of either subthreshold or major depressive disorders among subacute or long-term care residents, nor of the effects of depression on care outcomes in their rehabilitation program.

Vision impairment: Age-related vision loss is a prevalent but often overlooked problem in later life. While it has been estimated that approximately 20% of older adults in the general community self-report some vision problem, recent data indicate that between one-third and one-half of all nursing home residents have impaired vision, due not only to age-related eye diseases (macular degeneration, cataract, glaucoma, and diabetic retinopathy), but also to uncorrected refraction error and/or untreated disease. Vision loss has been shown to be strongly associated with both greater functional disability and higher levels of depressive symptomatology in both community and long-term care populations. Clinical experience also suggests that vision impairment complicates the rehabilitation care for comorbid conditions, placing older adults who reside in residential care at greater risk of falls and injuries. There has been very little systematic research examining the impact of vision impairment on care outcomes for older adults in either subacute or long-term care.

Study Objectives

The primary objectives of this pilot study are:

1. To document the prevalence and correlates of vision impairment and depression among older adults newly admitted to subacute and long-term care
2. To identify the effects of these conditions on rehabilitation service use and outcomes, functional ability, incidence of falls and injuries, and length of stay and discharge status.

Study data will also be used to compare the efficacy of two cognitive screening

instruments with visually impaired older adults: the Mini-Mental Status Examination (MMSE), which includes vision dependent items, and the modified Telephone Interview for Cognitive Status (TIC-M), which does not.

Methods

A total of 200 adults age 55 or older will be recruited: 100 in long-term care and 100 in subacute care. Participants will have been recently admitted to Jewish Home Lifecare and have been assessed by their primary care physician as being capable of answering simple questions about functional vision and mood.

In-person interviews will be conducted and collect data on the participant's functional vision, vision status, experience of pain, and symptoms of depression, as well as the MMSE and TIC-M, followed by a brief visual assessment of acuity and contrast sensitivity. In addition to the in-person interview, data will be collected from the participant's medical record in time in order to identify the consequences of vision impairment and depression on care, controlling for co-morbidities.

Current Status

Recruitment of participants in subacute care (n=92) and long-term care (n=13) is in progress. Collection of medical record data and preliminary review and analysis of interview data is also in progress.

Preliminary findings

The Subacute Experience (n=78)

- Vision impairment and depression effect significant subgroups:
 - 12% have low vision or poorer vision (20/70 or worse); 28% have worse than 20/40
 - About one-third (32%) have clinically significant depressive symptoms
- Greater vision impairment is associated with:
 - Living alone
 - Lower Education
 - Poorer Cognitive status on the TICS
 - Greater dependency on OT evaluation at admission (visual acuity)
 - Lower dependency on PT evaluation at admission (vision self-report)
 - Falls and Hospitalization during subacute stay (trends)
- Greater depression is associated with:
 - Not receiving enough emotional support from family and friends.
 - Greater Pain
 - Greater Loss of Hearing
 - Less Speech Therapy

There is limited evidence for effect of vision or depression on discharge status and change in functioning. However, patients who are visually impaired or depressed generally have worse functional status at both admission and discharge.

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Presentations

Horowitz, A., Reinhardt, J.P., & Morse, A.R. (November 2009). *Prevalence and consequences of vision impairment and depression among older adults in subacute rehabilitation*. Poster presented at the 62nd Annual Scientific Meeting of The Gerontological Society of America. Atlanta, Georgia.

Horowitz, A., Reinhardt, J.P., & Rodriguez, J. (March, 2010). *Depression among older adults in subacute rehabilitation: Prevalence and consequences*. Paper presented at the ASA Aging in America Conference. Chicago, Illinois.

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