2-2-2009

Health and Housing in an Aging Population: Identifying Risk Factors of Seniors Living Independently

Rachel Bell
Francois Coutu
Robert Johnston
Brendan Kelley
Shailen Mhapsekar

See next page for additional authors

Follow this and additional works at: http://scholarworks.uvm.edu/comphp_gallery

Part of the Community Health and Preventive Medicine Commons, and the Health Services Research Commons

Recommended Citation
Bell, Rachel; Coutu, Francois; Johnston, Robert; Kelley, Brendan; Mhapsekar, Shailen; Roberts, Jane; Viani, Heather; Hunter, Jennifer; Delaney, Tom; and Berry, Patricia, "Health and Housing in an Aging Population: Identifying Risk Factors of Seniors Living Independently" (2009). Public Health Projects, 2008-present. Book 11.
http://scholarworks.uvm.edu/comphp_gallery/11

This Article is brought to you for free and open access by the Public Health Projects, University of Vermont College of Medicine at ScholarWorks @ UVM. It has been accepted for inclusion in Public Health Projects, 2008-present by an authorized administrator of ScholarWorks @ UVM. For more information, please contact donna.omalley@uvm.edu.
Health and Housing in an Aging Population: Identifying Risk Factors of Seniors Living Independently

Rachel Bell1, Hayato Coutu1, Robert Johnston1, Brendan Kelley1, Shailen Mhapsekar1, Jane Roberts1, Heather Viani1, Jennifer Hunter2, Tom Delaney1, Patricia Berry1

University of Vermont College of Medicine1, Cathedral Square Corporation2

BACKGROUND

Aging is associated with numerous risk factors for declining physical and mental health. As a result, many elder individuals are forced to relocate to nursing homes, assisted living centers or just closer to adequate medical facilities. Studies have shown:

• Relocation of elders is associated with depression, anxiety, memory loss, and decreased social adjustment and life satisfaction1
• Persistently lonely people exhibit a 2-fold greater risk for developing Alzheimer’s disease (AD) than those who are not chronically lonely2
• Increased social interaction improves cognitive function in individuals with AD3

By helping seniors to age in place, many of the deleterious risks of relocation, such as social isolation, depression, and cognitive decline could be avoided. In addition to relocation, other risk factors that affect cognition have been identified:

• Physical activity is associated with higher cognitive functioning in elders4
• Polypharmacy is a risk factor for impaired cognition5

Thus, simple modifications that allow seniors to age in place may reduce morbidity and enhance quality of life. Cathedral Square Corporation (CSC) is a non-profit organization whose mission is to develop, manage, and own housing that provides community services to promote the health and well-being of elders, low income persons, and persons with disabilities.

Students from the University of Vermont College of Medicine (UVM) partnered with CSC in a project to promote aging in place via evaluation of seniors’ current needs and the development of a service model to meet these needs at home.

METHODS

Subjects: 115 elder residents (98 female, 17 male) in independent senior housing

Table 1. Summary of Results

<table>
<thead>
<tr>
<th>Emotional health</th>
<th>Cognitive health</th>
<th>Social health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enough contact with family</td>
<td>Enough contact with friends</td>
<td>Often downhearted or blue</td>
</tr>
</tbody>
</table>

Emotional health: 86% Enough contact with family, 84% Enough contact with friends, 34% Often downhearted or blue
Cognitive health: 28% Often anxious or bothered by noises, 15% Hopeless or helpless at all
Social health: 18% Percent of seniors who eat fewer than 2 meals per day

Falls: 37% Percent of seniors who have fallen in the past year

Data Collection and Analysis: Data were collected in Microsoft Excel 2003, validated by double entry of 20% of cases with 99% agreement. Data were analyzed using either SPSS or Excel software.

Approval: Survey approved by UVM Internal Review Board

RESULTS

Performance on Cognitive Screening by age group.

Figure 1.

DISCUSSION

One hundred fifteen subjects at three different independent senior living facilities were interviewed about many aspects of daily activities, nutrition and cognitive function. Discussed below are selected findings from the overall data set. Many of our results confirm that this population is vulnerable, and from this study there appear to be many areas for intervention.

• Cognitive Screen (Fig. 1): Pass rate (47%) was surprisingly low. Decreasing pass rate with age is consistent with national trends.
• Risk Factors for Developing Cognitive Impairment, Morbidity, Inability to Live Independently (Table 1):
  - Loneliness has been correlated with cognitive impairment1. However, the majority of subjects (>80%) reported that they had sufficient contact with family and friends
  - There were high rates of poor nutrition (18%), falls (37%) and polypharmacy (average number of prescriptions was 6). These risk factors are correlated with morbidity, cognitive impairment, and inability to live independently
  - There was a high rate of physical activity among respondents, which is a protective factor against the aforementioned outcomes
• Potential Sources of Error in Results:
  - Subjects who failed cognitive screen may have provided inaccurate self-reported data
  - Differences among students’ surveying methods is possible, despite a common training session

REFERENCES


ACKNOWLEDGEMENTS

Rajan Chawla, Nancy Eldridge, Tom Fowler, William Pendlebury M.D.